ARAB REPUBLIC OF EGYPT
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MATHEMATICS

For Primary Three

Second Term







2015 - 2016



- حافظ على الصلاة ؛ فالصلاة عماد الدين.
- أطع والديك وأحب زملاءك.
- أطع معلمك ومعلمتك وأحبهما.
- حافظ على نظافة كتبك وأدواتك.
- حافظ على كل جزء من مدرستك.
- احترم قواعد المرور.

دار مكة المكرمة للطباعة والنشر

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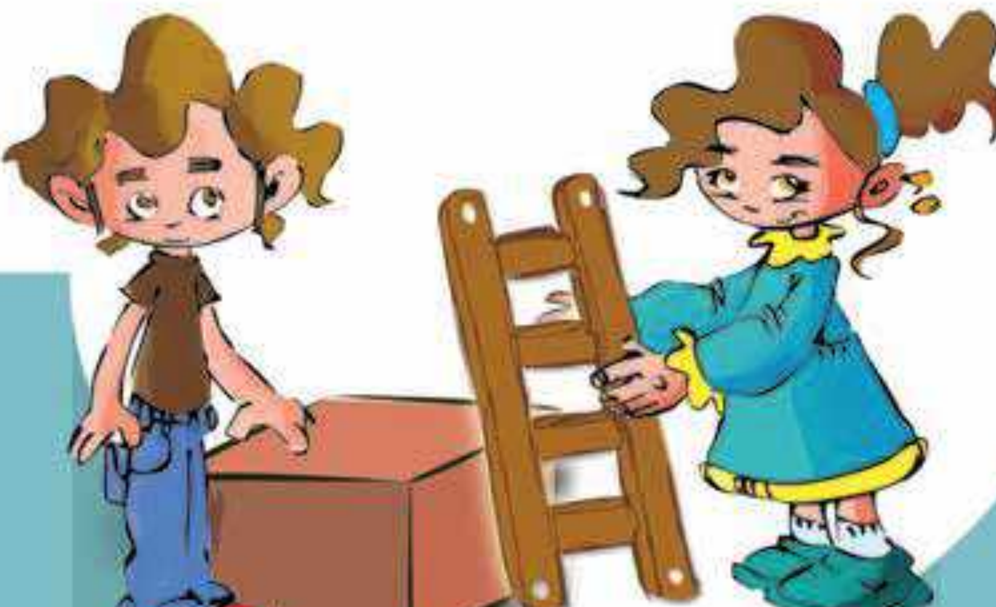
Mathematics

For Primary 3
Second Term

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2015 - 2016

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Introduction

A foreword to Teachers and Parents

Dear teachers and parents,

We are pleased to present you with this book as part of a developed chain of mathematics textbooks. For maximum benefit, please note the following:

1- Before solving the verbal problems, please read them out carefully to your pupils and make sure they are understood.

2- There are multiple correct answers to some of the problems. It is sufficient for your pupils to mention only one or some according to what is required in the problem. It is with these types of questions that we hope to develop our pupils' creativity.

3- An attempt has been made to remove barriers between mathematics and other areas of knowledge on the one hand, and mathematics and practical life on the other hand, according to what has come to be known as "curriculum integration". If today's scientists are mainly concerned with "the unity of human knowledge", then the best time to start is the primary stage. Therefore, it is expected that every single detail in the book will be given attention and care even if it does not belong to "mathematics" in the narrow sense of the word.

4- Some affective aims have been included in this curriculum. This is achieved by forming attitudes towards some social issues (such as the population issue) besides developing appreciation and interests towards the study of mathematics. Therefore, required discussions, comments, and other like responses should not be ignored under the pretext that they are not included in school tests.

5- It is not only the customary standards of education in Egypt that have been given apparent attention, but also modern trends in the teaching of mathematics. Among these are presenting comprehensive knowledge of numbers before details pertaining to place value and performing arithmetic operations.

6- In the course of designing this book, circumstances of Egyptian schools have been taken into consideration. Hence the use of measuring tools and the performance of practical experiments have been kept to a minimum.

7- There are activities and exercises at the end of each unit. The exercises are typical of the preplanned output of each unit. The activities, however, might sometimes exceed the contents of the unit with the purpose of reviving extra-curricular activities in mathematics. These, in general, support the output of the unit and can be viewed as enrichment activities at the same time.

May God guide us all to what is in the best interest of our beloved country.

The authors

Table of Contents

Unit 1

Multiplication



Lesson 1

Reviewing the Meaning of the Multiplication Operation and its Properties

(1) As you know, the number of children in the opposite figure can be written using the multiplication sign (×) as follows:





This means that : 5×2 = $5 + 5$

,So the number of the children = 10

Therefore $5 \times 2 = 5 + 5 = 10$

Complete in the same way: 3×2 = ... + ... = ...

6×4 = ... + ... + ... + ... = ...

2×1 = ... = ...

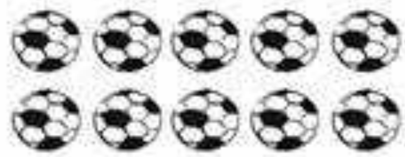
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(2) You also know that:

$5 \times 2 = 2 \times 5$

This is true for all numbers

Explain the meaning of that with the help of the opposite figure.



Complete:

- $2 \times 5 = 5 \times \ldots\ldots$
- $6 \times \ldots\ldots = 3 \times 6$
- $2 \times 3 = 3 \times \ldots\ldots$
- $\ldots\ldots \times 4 = 4 \times 5$

(3) After reviewing the meaning of the multiplication operation, complete as in the first btwo examples :

$5 \times 4 = 5 \times 3 + 5 \times 1$

$3 \times 4 = 3 \times 5 - 3 \times 1$

$5 \times 7 = 5 \times 6 + \ldots\ldots$

$2 \times 9 = 2 \times \ldots\ldots + 2$

$2 \times 3 = 2 \times 4 - \ldots\ldots$

(4) Complete with the help of the opposite figure:



The number of all the balls $= 4 \times \ldots\ldots$

The number of red balls $= 4 \times \ldots\ldots$

The number of blue balls $= 4 \times \ldots\ldots$

From this, we can write:

$4 \times 8 = 4 \times 5 + 4 \times \ldots\ldots$

Complete:

- $7 \times 6 = 7 \times 4 + 7 \times \ldots\ldots$
- $6 \times 9 = 6 \times 6 + 6 \times \ldots\ldots$
- $8 \times 12 = 8 \times 9 + 8 \times \ldots\ldots$
- $9 \times \ldots = 9 \times 9 + 9 \times 8$
- $5 \times \ldots = 5 \times 9 + 5 \times 5$
- $\ldots \times \ldots = 3 \times 9 + 3 \times 8$

(5) Complete with the help of the opposite figure:



The number of green balls $= 5 \times$ .... $=$ ....

The number of red balls $= 5 \times$ .... $=$ ....

The number of all the balls $=$ .... $+$ ...... $=$ .... $\times 2$

If we consider that the balls form two sets with the same number

5×3

in each, we can then write the whole number of balls in the form

$5 \times 3 \times 2$

Therefore $5 \times 3 \times 2 = (5 \times 3) \times 2 =$ ....$\times 2 = 30$

But if we consider that these balls are lined in rows so that each 5 balls are in one row and the number of rows is 3×2, we can then write:

$5 \times 3 \times 2 = 5 \times (3 \times 2) = 5 \times$ ...... $= 30$

We can therefore see that:

$5 \times 3 \times 2 = (5 \times 3) \times 2 = 5 \times (3 \times 2).$

Note That :

- Any number $\times$ 1 = the same number
  Example : $5 \times 1 = 5$
- Any number $\times$ Zero = Zero
  Example : $5 \times 0 = 0$
  1 $\times$ any number = the same number
  0 $\times$ any number = zero

Revision Exercises

(1) Complete:

$3 \times 2 = 3 + ...$, $7 \times 4 = 7 + ...$

$6 \times .... = 6 + 6 + 6 + 6$, $8 \times 3 = ...$

$5 + 5 + 5 = 5 \times ....$, $9 + 9 = ... \times ....$

$7 + 7 + 7 + 7 + 7 = ... \times ....$, $1 + 1 = ... \times ....$

(2) Complete:

$3 \times 7 = ...$, $4 \times 5 = ...$

$8 \times 2 = ...$, $6 \times 4 = ...$

$2 \times 9 = ...$, $3 \times 8 = ...$

$2 \times .... = 10$, $4 \times .... = 28$

$.......... \times 6 = 30$, $.......... \times 1 = 7$

$.......... \times 5 = 35$, $.......... \times .... = 1$

(3) Complete:

$6 \times 5 = 5 \times ....$, $4 \times .... = 7 \times 4$

$.......... \times 2 = 2 \times 9$, $3 \times 5 \times 4 = ... \times 4$

$2 \times 6 \times 5 = ... \times 5$, $3 \times 5 \times 4 = 3 \times ....$

$6 \times 2 \times 2 = 6 \times ....$, $5 \times .... \times 6 = 25 \times 6$

$.......... \times .... \times 9 = 2 \times 9$, $8 \times 9 = 4 \times .... \times 9$

$12 \times 7 = 2 \times .... \times 7$, $4 \times 5 \times 6 = 30 \times ....$

(4) Complete:

$7 \times 5 = 7 \times 3 + 7 \times$ .... , $8 \times 12 = 8 \times 8 + 8 \times$ ....

$9 \times 7 = 9 \times 6 +$ .... , $5 \times 4 = 4 +$ .... $\times$ ....

$5 \times 4 = 5 +$ .... $\times$ .... , $8 \times 8 = 8 \times 9 -$ ....

(5) Complete:

$7 \times 12 = 7 \times 9 + 7 \times$ .... , $6 \times 17 = 6 \times 9 + 6 \times$ ....

$= 63 +$ .... = ... , = ... + ... = ...

$3 \times 15 = 3 \times$ .... $+ 3 \times 9$, $5 \times 13 = 5 \times$ ... $+ 5 \times$ ....

= .... + ... = ... , = ... + ... = ...

Multiplying x 10

Complete: (1) In the opposite figure:

The number of stars
= 10 + 10
= 10 × .... = 20



(2) In the opposite figure:

The number of balls = 10 + ... + ...
= .... × 3 = ...



(3) Complete:

10 × 4 = 10 + ... + ... + ... = ...

10 × 5 = ... + ... + ... + ... + ... = ...

10 × 6 = ... + ... + ... + ... + ... + ... = ...

(4) Note the dir ection of the arrows, than complete the following table :

× 10	1	2	3	4	5	6	7	8	9
	10		30						

(5) Complete:

10×10 = ten tens = 6 tens + ... tens

= 60 + ... = ...

7×10 = $10 \times$ .... = ... tens = 4 tens + ... tens

= .... + ... = ...

N.B.

$2 \times 10 = 20$, $3 \times 10 = 30$, $4 \times 10 = 40$, ... and so on.

For example: $7 \times 10 = 10 \times 7 = 70$, $15 \times 10 = 10 \times 15 = 150$,

$68 \times 10 = 10 \times 68 = 680$ and so on.

Exercises

(1) Complete:

$8 \times 10 = 10 \times .... = ...$

$....... \times 10 = 10 \times .... = 90$

$10 \times 2 \times 3 = 10 \times .... = ...$

$10 \times 12 = 12 \times .... = ...$

$5 \times 7 \times 10 = ... \times 10 = ...$

$....... \times 10 = 10 \times .... = 530$

(2)

Calculate how many pounds Raouf should pay to buy 10 pencils for 12 pounds each.

....



(3) Noura bought 10 notebooks and 2 books. How much did Noura pay if you know that the price of the notebook is three pounds and the price of the book is ten pounds?

The price of the notebooks = ... × .... = ... pounds

The price of the books = ... × .... = ... pounds

What Noura paid = ... + ... = ... pounds

Lesson 3

Multiplying x 100

Complete:

100 × 2 = 100 + 100 = ...

100 × 4 = 100 + ... + ... + ... = ...

100 × 7 = 100 + ... = ...

We can continue in the same way until we reach : 100 × 10 = 1000

We can also consider that = 100 × 10 = ten hundreds

= five hundreds + five hundreds

= 500 + 500 = 1000

And also 100 × 10 = ten hundreds

= seven hundreds + three hundreds

= 700 + ... = ...

And so on ....

This can be arranged in the following two tables:

Complete:

100 × 0 = ...
100 × 1 = ...
100 × 2 = ...
100 × 3 = ...
100 × 4 = ...
100 × 5 = ...
100 × 6 = ...
100 × 7 = ...
100 × 8 = ...
100 × 9 = ...
100 × 10 = ...

0 × 100 = ...
1 × 100 = ...
2 × 100 = ...
3 × 100 = ...
4 × 100 = ...
5 × 100 = ...
6 × 100 = ...
7 × 100 = ...
8 × 100 = ...
9 × 100 = ...
10 × 100 = ...

N.B.

$2 \times 100 = 200$, $5 \times 100 = 500$, $9 \times 100 = 900$, ... and so on.
For example: $7 \times 100 = 700$, $18 \times 100 = 1800$,
$37 \times 100 = 3700$ and so on.

Exercises

(1) Complete:

6 × 100 = 100 × ..... = ... , ... × 100 = 100 × .... = 700
2 × 4 × 100 = ... × 100 = ... , 100 × 28 = ... × 100 = ...
100 × 5 × 7 = 100 × ..... = ... , ... × 100 = 100 × ..... = 7400

(2) As you know, one metre = 100 centimetres, complete:

7 metres = ... centimetres because 7 × 100 = ...
9 metres = ... centimetres because .... × 100 = ...
25 metres= .... centimetres because .... × 100 = ...

(3) If you know that Adel's father saves 100 pounds a month regularly, complete:

What he saves in 8 months = ... pounds
because 8 × 100 = ...
What he saves in 10 months = ... pounds
because 10 × 100 = ...
What he saves in a whole year = ... pounds
because .... × .... = ...

Lesson 4

Multiplying x 1000

Complete:

1000 × 3 = 1000 + 1000 + 1000 = ...

1000 × 5 = 1000 + ... + ... + ... + ... = ...

We can continue in the same way until we reach : 1000 × 10 = 10000

We can also consider that:

1000 × 10 = ten thousands

= seven thousands + three thousands

= 7000 + 3000 = 10000

Complete: 1000 × 10 = ten thousands

= 4 thousands + ... thousands

= .... + ... = ...

Notice the following examples:

8 × 1000 = 8000

29 × 1000 = 29000

47 × 1000 = 47000

Exercises

(1) Complete:

7 × 1000 = 1000 × .... = ...

.... × 1000 = 1000 × .... = 9000

2 × 4 × 1000 = ... × 1000 = ...

3 × .... × 1000 = ... × 1000 = 6000

2 × .... × 1000 = 1000 × .... = 10000

7 × .... × 1000 = 1000 × .... = 56000

(2) Complete:

30 × 40 = 100 × .... = ...

8 × 50 = ... × 100 = ...

6 × 200 = ... × 100 = ...

10 × 170 = 100 × .... = ...

.... × 10 = 52 × 100 = ...

.... × 100 = ... × 1000 = 7000

(3) As you know, one kilogram = 1000 grams. Complete:

4 kilograms = ... grams because 4 × 1000 = ...

12 kilograms = ... grams because 12 × 1000 = ...

.... kilograms = 34000 grams because .... × .... = ...

(4) The average profit of a shop is 1000 pounds a week. What do you expect the profit to be in:

(a) six weeks? ....

(b) eight weeks? ....

(c) twenty weeks? ....

Lesson 5

Multiplying a 2-digit Number by a 1-digit Number

Example (1) **Find the product of 12 × 4**

Consider 12 × 4 to be the number of the small squares that the opposite figure contains.



(Because the number of squares it contains is 12 + 12 + 12 + 12)

The number of small squares = 2 × 4 + 10 × 4

= 8 + 40 = 48

The solution can therefore written in the following form:

12 × 4	→	2 + 10 × 4
…………		8 + 40

This means that 12 × 4 = 48 , also 4 × 12 = 48

Example (2) **Find the product of 123 × 5**

123 = 3 + 20 + 100

123 × 5	→	100 + 20 + 3 × 5
…………		500 + 100 + 15 = 615

This means that 123 × 5 = 615 , also 5 × 123 = 615

(1) Notice and Complete:

(1)(1) 123 × 5	(3)(3)(1) 2784 × 4	(3)(5)(5) 5467 × 8	3295 × 6
615	11136	43736	…………

(2) Multiply:

2234 × 2	6234 × 3	5489 × 4	6743 × 9
…………	…………	…………	…………

(1)(1)
6234 × 3 = 18702

Note : the vertical product = the horizontal product

Use the calculator to check that the previous results are correct.

(3) Mostafa bought 3 metres of cloth to have a suit made. How much did Mostafa pay if the price of 1 metre is 89 pounds?

The price of the cloth= ……… × ……… = ……… pounds

(4) Mahmoud went to the market. He had twenty pounds. He bought 2 kgms of tomatoes for 3 pounds a kilo, 1 kilogram of cucumber for 2 pounds and 3 kgms of oranges for 2 pounds a kilo. How many pounds did Mahmoud have when he left the market?



(5) Complete as the first, second examples

645 × 7	2368 × 9	5 ☐ 86 × 6	6 ☐ 57 × 6
4515	21312	347 ☐ ☐	3 ☐ 7 ☐ 2

☐ 98 × 5 = 3490   5 × 4 ☐ 3 = 231 ☐

(6) Complete in the same sequence:

5 , 25 , 125 , 625 , ... , ... , ...

10 , 100 , 1000 , ... , ...

6 , 36 , 216 , ... , ...

(7) Complete using one of the signs (< , = , or >):

286 × 3	☐	200 × 4	1234 × 9	☐	3702 × 3
6594 × 6	☐	7912 × 5	2465 × 7	☐	2875 × 6
3698 × 8	☐	4227 × 7	4689 × 10	☐	9378 × 5

(8) Notice, then put (✓) in fornt of the correct answer and (X) in fornt of the uncorrect answer, give a reason :

(a) 264 × 2 = 548 (X) because the number in the tens digit is false

(b) 2 × 3 × 715 = 4290 (✓) because the product gives the final answer

(c) 2708 × 7 = 118956 (   ) because ....

(d) 9 × 6124 = 55116 (   ) because ....

(e) 2 × 5 × 5756 = 507560 (   ) because ....

Activities

Unit 1

(1) Ahmed wrote a number of 4 different digits. If you find out that their sum is 8, then what is their product?

(2) If you know that 7 × 5 = 35 , 7 × 6 = 42 , 7 × 8 = 56, use these equalities to complete:

7 × 11 = ... + ... = ... , 7 × 14 = ... + ... = ...

7 × 13 = ... + ... = ... , 7 × 19 = ... + ... + ... = ...

(3) If you know that:

49 × 7 = 343 , 49 × 30 = 1470

Complete:

49 × 70 = ... , 49 × 3 = ...

49 × 77 = ... + ... = ..., 49 × 33 = ... + ... = ...

49 × 37 = ... + ... = ..., 49 × 73 = ... + ... = ...

(4) Check that the following equalities are correct:

32 = 2 + 3 + (3 × 9) 75 = 5 + 7 + (7 × 9)

63 = 3 + 6 + (6 × 9) 80 = 0 + 8 + (8 × 9)

Try other numbers of your own, then search for the reason why this pattern is always correct. Complete the following equalities (in the same way):

47 = 7 + 4 + (4 × ....)

68 = 8 + ... + (6 × ....)

96 = ...

84 = ...

59 = ...

Exercises on Unit 1

(1) Find the product:

$7 \times 10 =$ ..... , $8 \times 100 =$ .... , $9 \times 1000 =$ ....

$2 \times 4 \times 100 =$ .... , $7 \times 2 \times 5 =$ .... , $20 \times 100 =$ .....

(2) Complete the following table:

× 100

5	12			100
		700	3900	

(3) Perform the following multiplication operations:

114 × 6 = ...

308 × 7 = ...

$255 \times 5 =$ ....

$317 \times 9 =$ ....

(4) Complete by writing the missing numbers:

9 □ 3 × 6 = 5 4 □ 8

5 □ □ × 9 = □ 5 6 3

□ □ 0 2 × 2 = 3 2 □ □

(5) Find the price of 8 metres of cloth if the price of one metre is 150 pounds, then find the price of 80 metres of the same cloth.

(a) The price of 8 metres: = ... × .... = ... pounds

(b) The price of 80 metres: = ... × .... = ... pounds

Unit 2

Division



Lesson 1

The Meaning of the Division Operation

(1) The picture shows 8 balls coloured in red and green. They are to be given out to Shaimaa and Nancy so that Shaimaa gets the red balls and Nancy gets the green ones.



Complete:

The number of red balls = ... , the number of green balls = ...

In this case, each of the two girls will get the same number of balls. We therefore say that the balls were divided equally between the two girls.

Complete: 8 = ... × 2

(2) The picture shows 13 balls that we want to divide equally among Sherif, Bassem, and Kareem.

Complete with the help of the opposite figure:

The greatest number of balls each can take = ...

The number of remaining balls = ...

13 = ... × 3 + ...



(3)

(a) Can 7 pens be divided equally between two children?....

(b) What is the greatest number of pens each can take?......

(c) What is the number of remaining pens?

7 = ... × 2 + ...

(4) If you know that, 70= 7 × 10, Complete the following story.

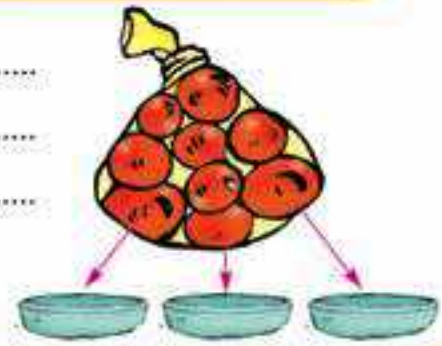
__The story:__ When .... pieces of candy was distributed equally among .... children, they could be all distributed. Therefore, each child took .... pieces of candy

(5) Write a story deduced from the opposite figure:

The story: ....

....

....



Using the division sign ÷ :

(1) When 18 pieces of candy are divided equally among three children, each child will get the same number of candy. This operation can be written by using the division sign (÷) as follows:



Each child's share = 18 ÷ 3 and is read (18 divided by 3)

But if we divide this candy equally between two children only, then the share of each child = ... ÷ .... = ...

(2) Aisha's mother wants to put 12 oranges in 4 plates so that each plate has the same number of oranges.



Complete:

The number of oranges in each plate

= .... ÷ .... = ...

(3) Mai's mother wants to put 15 apples in plates so that each plate has 5 apples.



Complete:

The number of plates

= .... ÷ .... = ...

(4) 24 sacks of cement are to be transported by means of a pick-up. If the pick-up can-not carry more than 12 sacks at a time,



Complete:

The number of times needed

= .... ÷ .... = ...

(5) Sameh's father wants to give out 12 notebooks and 3 pencils equally to his three children.



Complete:

Each child's share of notebooks

= .... ÷ .... = ...

Each child's share of pencils

= .... ÷ .... = ...

(6) Maha's mother bought two packets of candy, one of which has 20 pieces while the other has 12 pieces. She divided them equally between Maha and her brother Hossam.





Complete:

Each child's share= (......... ÷ ....) + (......... ÷ ....)

If Maha's mother put all the candy together, then divided the candy equally between her two children, each child's share would be .... ÷ .... In other words:

(......... ÷ ....) + (......... ÷ ....) = ... + ... = ...

(7) Complete with the help of the opposite picture:

Each boy's share

= .... ÷ .... = ...





(8) Write a story to express each of the following:

(a) 26 ÷ 2

(b) 45 ÷ 5

Lesson 2

Finding the Quotient

(1) Distribute equally and complete:



Each monkey gets ☐ bananas.

6 ÷ 3 = ...

(2)



☐ Oranges are put in each basket.

8 ÷ 2 = ...

(3)



Each child gets ☐ pieces of biscuits.

12 ÷ 4 = ...

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(4)



Each rabbit gets ☐ carrots.　　...... ÷ ..... = ...

Note: The division operation 8 ÷ 4 = 2 can be written in the form

$$\text{divisor} \leftarrow 4\overline{\smash{)}\,8}\ \ (2 \leftarrow \text{quotient},\ 8 = \text{dividend})$$

Example : 10 ÷ 2 = 5 is written as

$$2\overline{\smash{)}\,10}\ \ \text{with quotient } 5$$

(5) Perform the following division operations:

6 ÷ 2 = ...	$5\overline{\smash{)}\,10}$	$4\overline{\smash{)}\,12}$	$10\overline{\smash{)}\,30}$
24 ÷ 8 = ...	$3\overline{\smash{)}\,15}$	$7\overline{\smash{)}\,28}$	$6\overline{\smash{)}\,54}$
35 ÷ 7 = ...	$6\overline{\smash{)}\,42}$	$2\overline{\smash{)}\,20}$	$7\overline{\smash{)}\,49}$

(6) How many teams can be formed out of 20 children so that each team has an equal number of players. Draw 3 possible cases. Represent each child with the sign ×

First case	Second case	Third case

Lesson 3

The Relation between Division and Multiplication

(First):



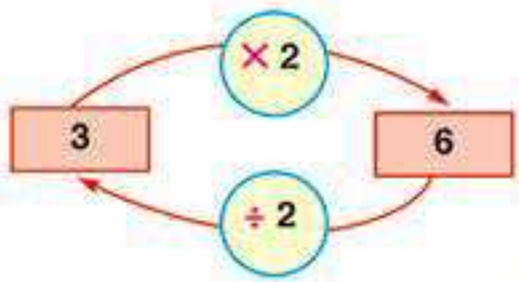
The opposite figure can be considered to represent 3 apples repeated twice. Therefore, the total number is 6 apples.
In this case the figure expresses the following multiplication operation:

$3 \times 2 = 6$

- The figure can also be considered to represent 6 apples divided into two parts (piles) with 3 apples each.
  In this case the figure expresses the following division operation:

$6 \div 2 = 3$

The two operations can be written together as follows:

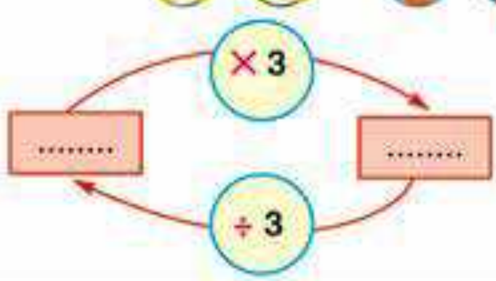


(1) Notice the opposite figure and complete:

.... × 3 = ...

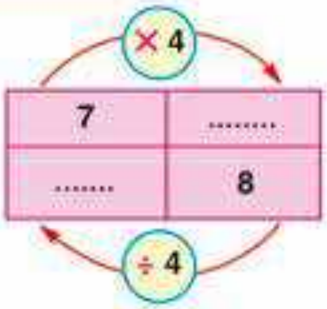
.... ÷ 3 = ...





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(2) Complete:

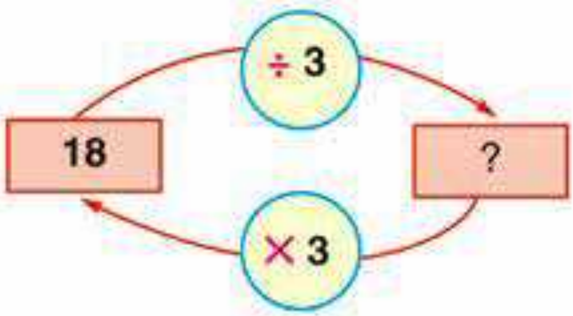




(Second):

- From this we can deduce that to find the quotient of 18 ÷ 3, we search for the number that gives 18 if multiplied × 3

We therefore have to complete the following figure:



Since we know that 6 × 3 = 18

Therefore 18 ÷ 3 = 6

(1) Find the number that gives the product 21 if multiplied by 7. Then deduce the corresponding division operation.

Complete:

.... × 7 = 21 and therefore 21 ÷ 7 = ...

(2) Complete as in the example:

Example:

6 × 9 = 54	9 × 6 = 54	7 × 5 = ...	5 × 7 = ...
54 ÷ 9 = 6	54 ÷ 6 = 9	.... ÷ 5 = ...	.... ÷ 7 = ...
8 × .... = ...	6 × 8 = ...	.... × .... = ...	.... × .... = ...
.... ÷ .... = 8	.... ÷ 8 = ...	.... ÷ .... = ...	72 ÷ 8 = ...

(3) Complete:

18 ÷ .... = 6	$\begin{array}{r} 7 \\ 6\overline{)\ \dots\ } \end{array}$	.... ÷ 9 = 9
$\begin{array}{r} 4 \\ \dots\overline{)\ 24\ } \end{array}$	35 ÷ .... = 7	.... ÷ 8 = 9
...... ÷ 10 = 8	16 ÷ ..... = 2	$\begin{array}{r} \dots \\ 3\overline{)\ 21\ } \end{array}$
36 ÷ 4 = ...	$\begin{array}{r} 7 \\ 8\overline{)\ \dots\ } \end{array}$	..... ÷ 6 = 8
$\begin{array}{r} 4 \\ 8\overline{)\ \dots\ } \end{array}$	...... ÷ 3 = 9	45 ÷ 9 = ...
14 ÷ 2 = ...	.... ÷ 7 = 7	$\begin{array}{r} \dots \\ 5\overline{)\ 40\ } \end{array}$

(4) A piece of land was divided equally among 3 farmers. If the area of the land was 9 feddans, what is each farmer's share?

Each farmer's share = ... = ... feddans

(5) George bought a number of books from the Family Library and distributed them equally among his family that consists of 4 members. The share of each member of his family was 3 books.



Complete: The number of books George bought:

= .... x .... = ... books

(6) 54 volleyball players participated in a contest. If every team is made up of 6 players. How many teams participated?



Number of teams = ... ÷ .... = ... teams

Lesson 4

Even Numbers and Odd Numbers

(1) In the physical education period groups were formed in different games as follows:



Football : 14 pupils

Basketball : 10 pupils

Volleyball : 12 pupils

Aerobics : 9 pupils

The teacher asked the groups to stand in rows with 2 adjacent pupils in each row.

Complete: to find the number of rows of each group:

Football : **14 ÷ 2 =** .... and .... remain. Therefore the number of rows = ...

Basketball : **10 ÷ 2 =** .... and .... remain. Therefore the number of rows = ...

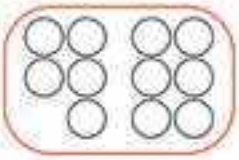
Volleyball : **12 ÷ 2 =** .... and .... remain. Therefore the number of rows = ...

Aerobics : **9 ÷ 2 =** .... and .... remain. Therefore the number of rows = ...

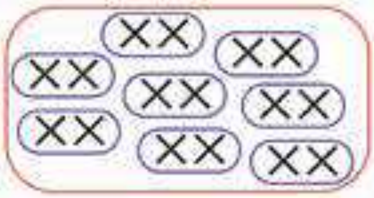
From this we notice that in each of the first three groups each pupil could find a classmate to stand by to form a row. No one was left alone. In this case the whole number of pupils (that could be divided into Pairs with no one remaining alone) is called an even number. As for the last group, we find that each pupil found another pupil to stand beside him, except for one who remained alone. The number in this case is called an odd number.

(2) In each of the following figures, we tried to form pairs.

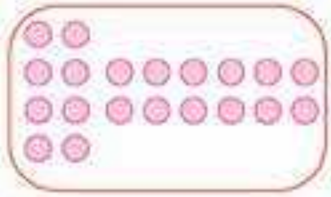
Notice each figure and complete using either "even" or "odd".



an ..... number



an ..... number



an ..... number

(3) We have learned that even numbers can be divided into pairs with no remainders. Therefore, if we add 2 to any even number it will remain even (Why?). But if we add 1 to any even number it becomes an odd number (Why?). From this we can deduce that any even number has the digits 0, 2, 4, 6, or 8 as its units digit. As for the odd number, its units digit is either 1, 3, 5, 7, or 9.

For example 1872 is considered an even number. (Why?)

and 7845 is considered an odd number. (Why?)

(4) Underline the even numbers:

4069 , 17352 , 74 , 2003 , 3002

(5) (a) Write two even numbers whose sum is 100 (...... and ....)

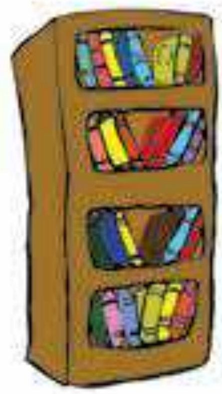
(b) Write two odd numbers whose sum is 100 (........ and ....)

Lesson 5

Dividing a Number by a 1-digit Number

(1) In one of the libraries 484 books are to be distributed among four shelves equally. How many books should be put on each shelf?

We know that the number of books on each shelf will be the quotient of the division operation 484 ÷ 4. To find this quotient:



Consider that: 484 = 400 + 80 + 4

= 4 hundreds + 8 tens + 4 units

4 hundreds ÷ 4 = one hundred = 100

8 tens ÷ 4 = two tens = 20

4 units ÷ 4 = one unit = 1

Therefore the number of books on each shelf

= 100 + 20 + 1 = 121 books

Therefore 484 ÷ 4 = 121

(2) Complete as in the example:

Example:

396 ÷ 3	284 ÷ 2	848 ÷ 4
300 ÷ 3 = 100	200 ÷ 2 = ...	800 ÷ .... = ...
90 ÷ 3 = 30	80 ÷ 2 = ...	..... ÷ .... = ...
6 ÷ 3 = 2	4 ÷ 2 = ...	..... ÷ .... = ...
396 ÷ 3 = 132	284 ÷ 2 = ...	848 ÷ 4 = ...

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(3) Find the quotient of each of the following division operations directly:

963 ÷ 3 = ... , 460 ÷ 2 = ...

804 ÷ 4 = ... , 6482 ÷ 2 = ...

9300 ÷ 3 = ... , 7070 ÷ 7 = ...

(4) A merchant wanted to put 626 pieces of candy in two packets so that each packet would contain the same number of pieces.

Complete : 626 ÷ 2 = ...

The number of pieces in each packet = ...





(5) Perform the following division operations:

624 ÷ 2 = ... , 666 ÷ 6 = ...

636 ÷ 3 = ... , 505 ÷ 5 = ...

999 ÷ 9 = ... , 800 ÷ 2 = ...

4682 ÷ 2 = ... , 5500 ÷ 5 = ...

8044 ÷ 4 = ...

(6) **Samia and Mariam's father distributed among them 226 pounds equally. What is the share of each one?**

The share of each = ... ÷ .... = ... pounds

(7) **A primary school has 9 classes with equal numbers in each. If the whole number of pupils is 450 pupils. How many pupils are there in each class?**

The number of pupils in each class = ... ÷ .... = ... pounds

(8) **An equal number of children are vaccinated against polio in one of the Ministry of Health Clinics. If 328 children are vaccinated in 8 days, then how many children were vaccinated in 5 days.**

Number of children vaccinated in one day = ... ÷ .... = ... child

Number of children vaccinated in 5 days = ... x .... = ... child

Activities
Unit 2

(1) Division and money:

If you know that each child has 150 piastres. What can he buy with this sum of money? Complete:




15 piastres

Omar can buy ☐ lollipops.




50 piastres

Omar can buy ☐ pieces of biscuits.




25 piastres

Nesreen can buy ☐ pens.




75 piastres

Hanaa can buy ☐ ice creams.




30 piastres

Hind can buy ☐ pieces of pie.

Exercises on Unit 2

(1) Complete:

6 ⟌ 2406 = ...

100 × 78 = ...

2359 × 5 = ...

10 × 970 = ...

6488 ÷ 8 = ...

3690 ÷ 9 = ...

65 × 70 = ...

65 × 6 = ...

65 × 76 = ... + ... = ...

(2) Complete in the same order:

2 , 4 , 8 , ... , ... , ..., ...

215 , 430 , 860, ... , ... , ..., ...

(3) Complete using one of the signs (< , = , or >):

3752 ÷ 7 ☐ 3752 × 7

2601 ÷ 9 ☐ 2061 ÷ 9

1392 ÷ 4 ☐ 1392 ÷ 6

387 ÷ 3 ☐ 329 ÷ 1

(4) Show whether the answers of the following problems are reasonable or unreasonable and give a reason:

(a) 598 × 7 = 3986 (   ), because ....

(b) 1779 ÷ 6 = 596 (   ), because ....

(c) 2594 ÷ 4 = 6378 (   ), because ....

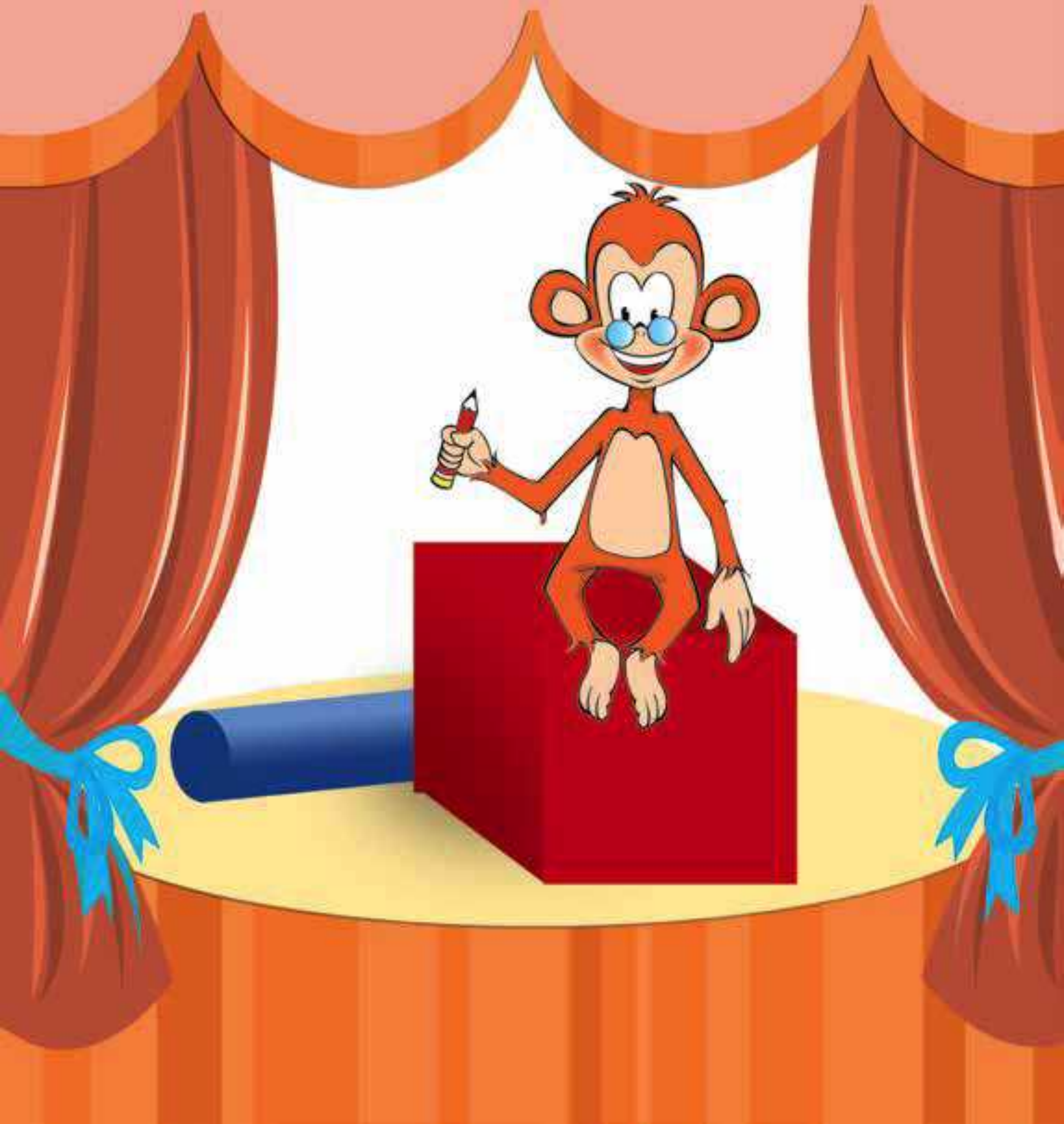
(d) 285 × 9 = 2565 (   ), because ....

(5) Children who turned six in one of the cities were distributed among 8 schools. If their number is 4880, then how many children were sent to each school?

The number of children sent to each school = ... ÷ .... = ... child

Unit 3

Geometry

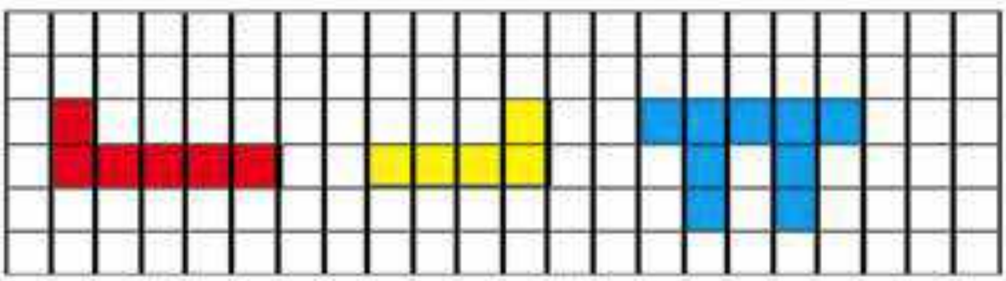


The Perimeter

You already know that the perimeter of any shape is the length of the line that outlines that shape and therefore:

The perimeter of any polygon equals the sum of its sides' lengths.

(1) Calculate the perimeter of each of the following shapes: (Consider the length of the small squares' side a unit)



Perimeter=..... units Perimeter=..... units Perimeter=..... units

(2) Complete with the help of the opposite figure:

The lengths of the triangle's sides are .... , ... , and .... centimetres. Therefore the triangle's perimeter

= .... + ... + ...

= .... cm



(3) Calculate the perimeter of a triangle whose sides are 4, 5, and 8 centimetres:

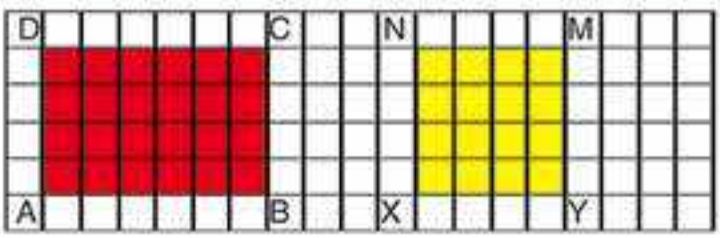
Perimeter = ...

(4) The perimeter of a triangular piece of land is 200 metres. Find the length of its third side if you know that the sum of two of its sides is 140 metres:

....

The rectangle and the square:

(1) The following figure represents the rectangle ABCD and the square XYMN



Consider the length of the small square's side a unit of length and complete:

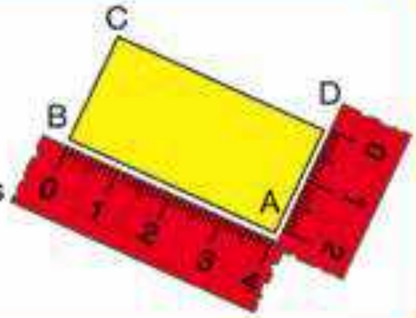
AB = ... units , BC = ... units

CD = ... units , DA = ... units

XY = ... units , YM = ... units

MN = ... units , NX = ... units

(2) The opposite figure represents the rectangle ABCD with the help of the figure complete:



AB = ... centimetres.

AD = ... centimetres,

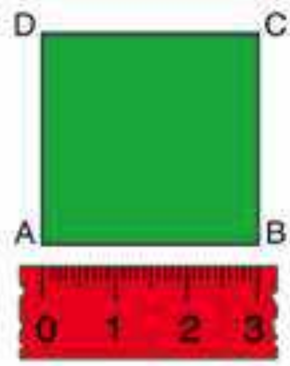
Deduce the length of the other two sides

CD =......... centimetres, BC = ... centimetres

The perimeter of the rectangle = ...

= .... centimetres

(3) The opposite figure represents square ABCD. With the help of the figure, complete:



AB = ... centimetres

Deduce the length of the remaining sides and calculate the square's perimeter.

The perimeter of the square = ...

= .... centimetres

(4) A square the length of its side is 3 cm calulate its perimeter.



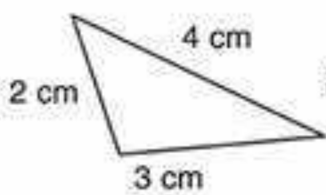
The perimeter = ...

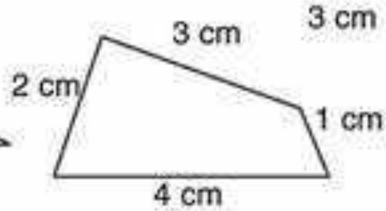
(5) A rectangle whose length is 8 centimetres and width is 3 centimetres calculate its perimeter :

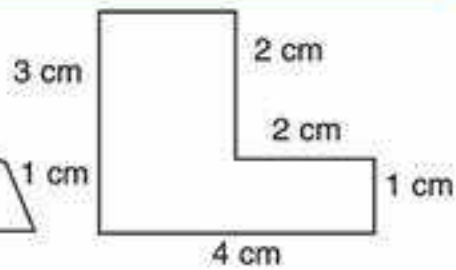


The perimeter = ...

(6) Calculate the perimeter of each of the following shapes with the help of the lengths of the sides shown on the shape:







Perimeter = ... cm   Perimeter = ... cm   Perimeter = ... cm

(7) In the opposite shape:

BCDE is a square where AB = 3 cm, AE = 5 cm, and CD = 4 cm. Calculate:

(a) The perimeter of square BCDE.

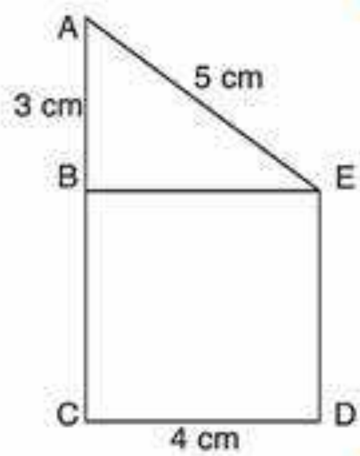
....

(b) The perimeter of triangle ABE.

....

(c) The perimeter of the whole shape ACDE.

....

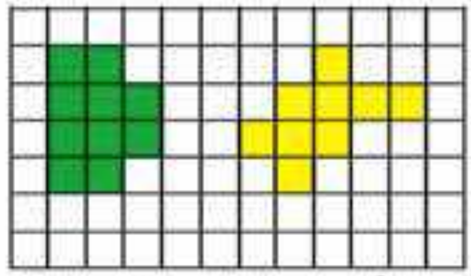


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Lesson 2

The Area

(1) To find out which of the following two shapes covers more space, find the number of small square that each shape consists of :



1 2

Complete:

Number of small squares in the first shape....

Number of small squares in the second shape = ...

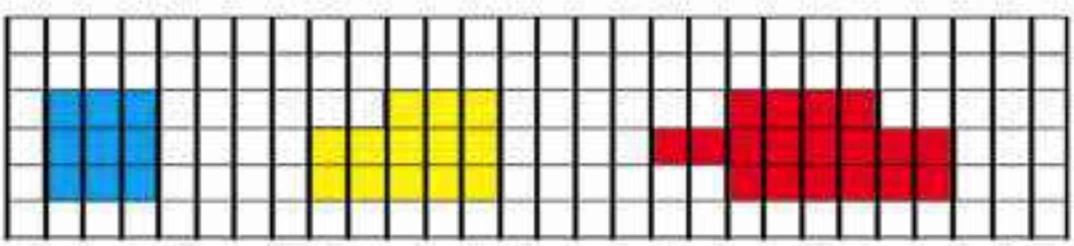
Therefore, shape (.....) is the shape that covers more space.

In this case we say that the area of shape is greater than the area of shape. In other words:

The area of a shape is defined by the number of units which consist that shape.

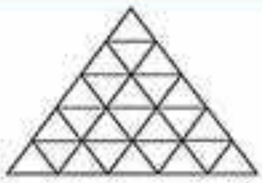
Then, an area of a shape depends on the used unit. If this unit is changed, the area of the shape is changed as well.

(2) Calculate the area of each of the following shapes. Consider the small square a unit of area:

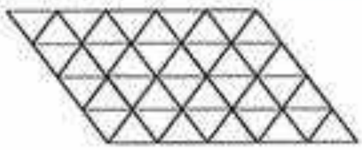


area = ...   area = ...   area = ...

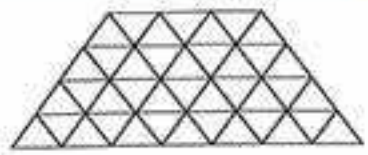
(3) Calculate the area of each of the following shapes, consider the small triangle a unit of area:



the area = ... △



the area = ... △

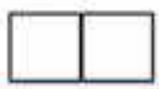


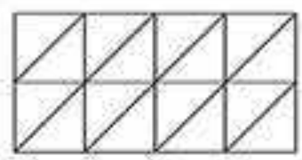
the area = ... △

(4) Write the area of the opposite figure according to the given unit:

the area =........ 

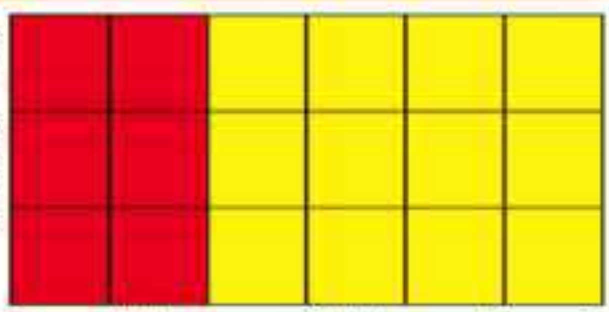
the area =........ 

the area =........ 



(5) The opposite figure represents a large rectangle divided into two rectangles:

(a) Consider the length of the small square's side a unit of length and the area of the small square a unit of area and complete the following table:



	Perimeter	Area
The red rectangle	....	....
The yellow rectangle	....	....
The large rectangle	....	....

(b) Answer with Yes or No and explain why:

- The perimeter of the large rectangle = the sum of the perimeters of the two rectangles (Yes / No).
- The area of the large rectangle = the sum of the areas of the two rectangles (Yes / No).

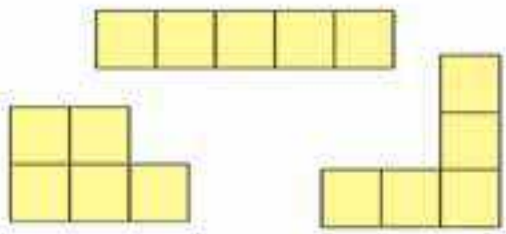
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(6) **(a)** Do the three opposite shapes have the same area? (Yes / No)

Why?..................................

(b) search if they have the same perimeter? (Yea / No)

Why? ....

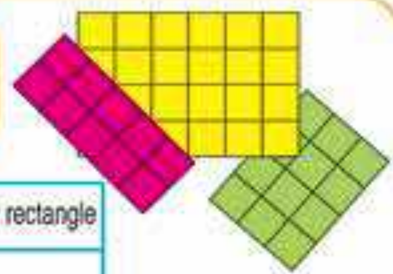


(c) Draw two shapes that have the same area but not the same perimeter.

(d) Draw two shapes that have the same perimeter but not the same area.

Activities Unit 3

(1) Find the perimeter and area of each of the rectangles in the opposite figure and complete the following table:



	The red rectangle	The green rectangle	The yellow rectangle
Perimeter	....	....	....
Area	....	....	....

(2) Find the perimeter and area of the opposite shape according to the given unit:



The perimeter = ... units (Consider the length of the small square's side a unit).

The area = ... □ = ... □□ = ... ⊞

(3) The opposite shape represents a square divided into seven shapes numbered 1 - 7



Consider the area of shape (1) a unit of area and:

(a) Find the area of the rest of the shapes and complete the following table:

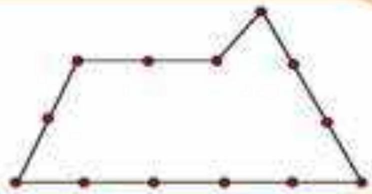
Shape	1	2	3	4	5	6	7	The large square
Its area	1	....	....	....	....	....	....	....

(b) Write the numbers of:

- Two shapes congruent: .... and ....
- Another two shapes that are congruent: .... and ....
- Two shapes equal in area but not congruent: .... and ....
- Another two shapes equal in area but not congruent: .... and ....

Exercises on Unit 3

(1) Find the perimeter of this shape if you know that the distance between each two points is 1 centimetre long.

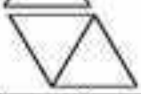


(2) Find the area of the opposite shape according to the given unit:

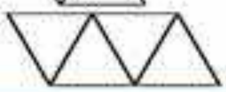
Area of the shape = ...

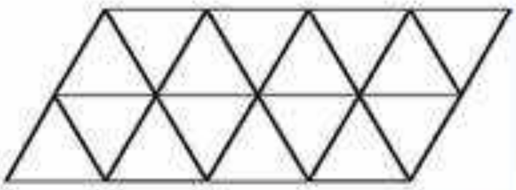


= ......



= ......





(3) (a) Find the perimeter of a square whose side length is 3 cm.
The perimeter of the square = ... cm
(b) Find the perimeter of a triangle whose sides are 5 cm, 7 cm, and 10 cm.
The perimeter of the triangle = ... cm



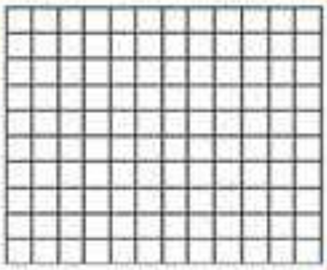
(4) On the opposite lattice: Draw a shape with a perimeter of 8 units of length.

(Consider the length of the small squares side a unit of length and its area a unit of area)



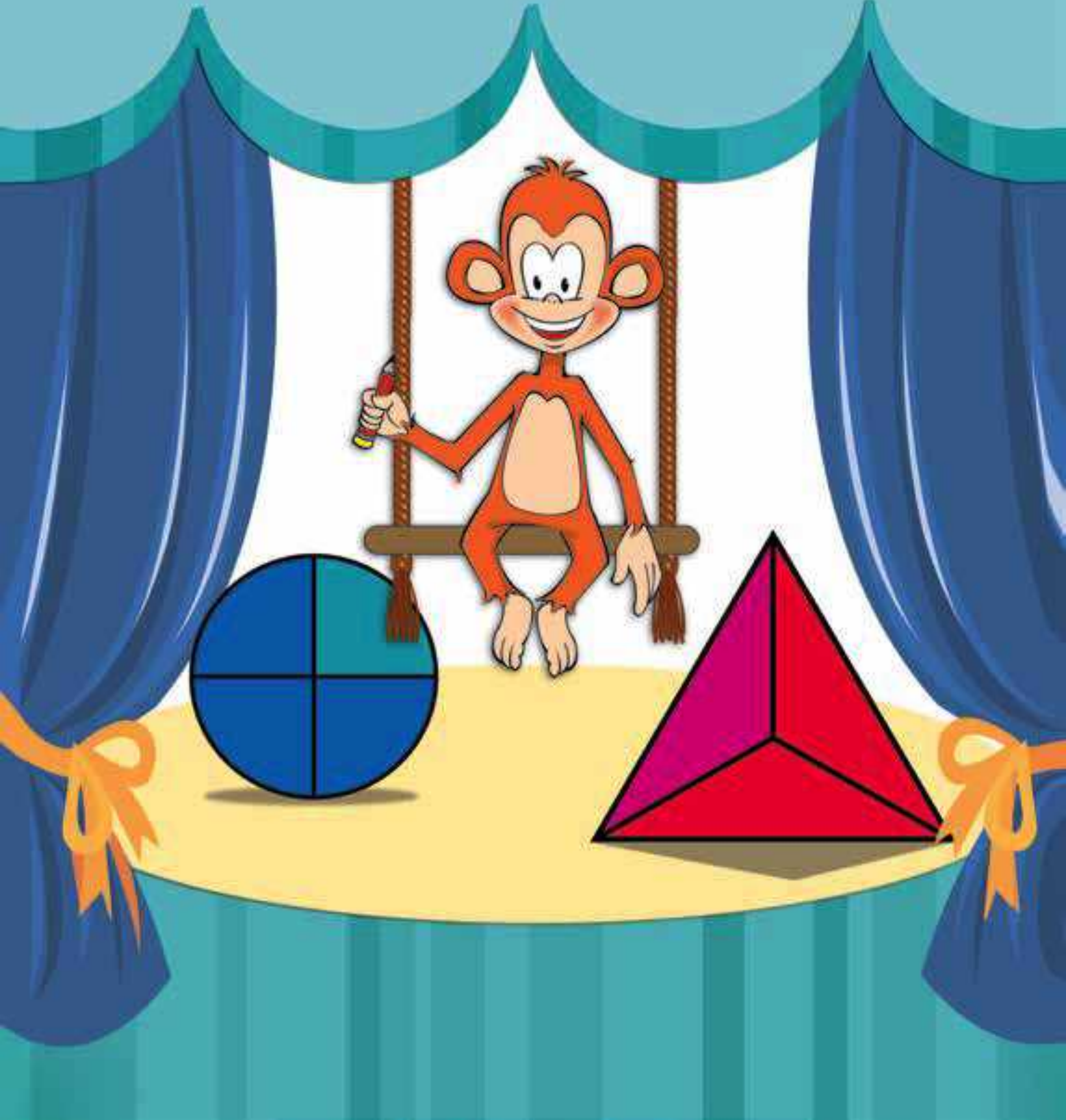
(5) On the opposite lattice: Draw a shape with area of 8 square units.

(Consider the length of the small squares side a unit of length and its area a unit of area)



Unit 4

Fractions



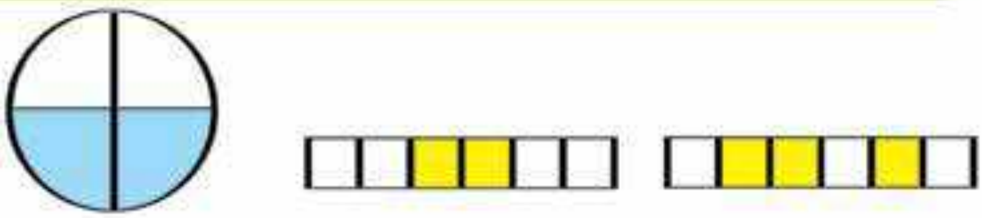
The Meaning and Reading of Fractions

(1) Colour according to the fraction:

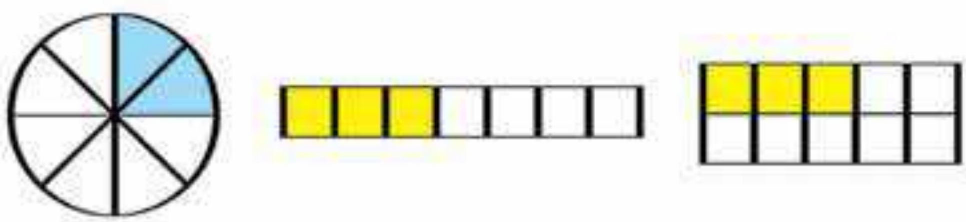


$\frac{1}{2}$ $\frac{2}{3}$ $\frac{3}{5}$

(2) Write the fraction according to the coloured part:



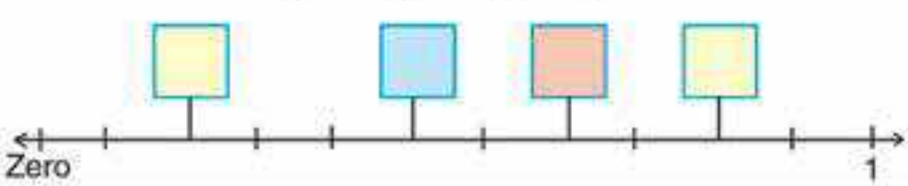
....



....

(3) Write the following fractions in their suitable places on the number line:

$\frac{5}{10}$, $\frac{2}{10}$, $\frac{7}{10}$, $\frac{9}{10}$



(4) How many thirds are there in one whole?



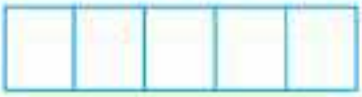
....

How many quarters are there in one whole?



....

How many fifths are there in one whole?



....

(5) Complete:

$1 = \frac{\dots}{5} = \frac{3}{\dots} = \frac{\dots}{4} = \frac{7}{\dots} = \frac{\dots}{6} = \frac{\dots}{\dots}$

(6) Write the following fractions:

two thirds $= \frac{\dots}{\dots}$

four sevenths $= \frac{\dots}{\dots}$

seven eighths $= \frac{\dots}{\dots}$

four nineths $= \frac{\dots}{\dots}$

a half $= \frac{\dots}{\dots}$

an eighth $= \frac{\dots}{\dots}$

five sevenths $= \frac{\dots}{\dots}$

five sixths $= \frac{\dots}{\dots}$

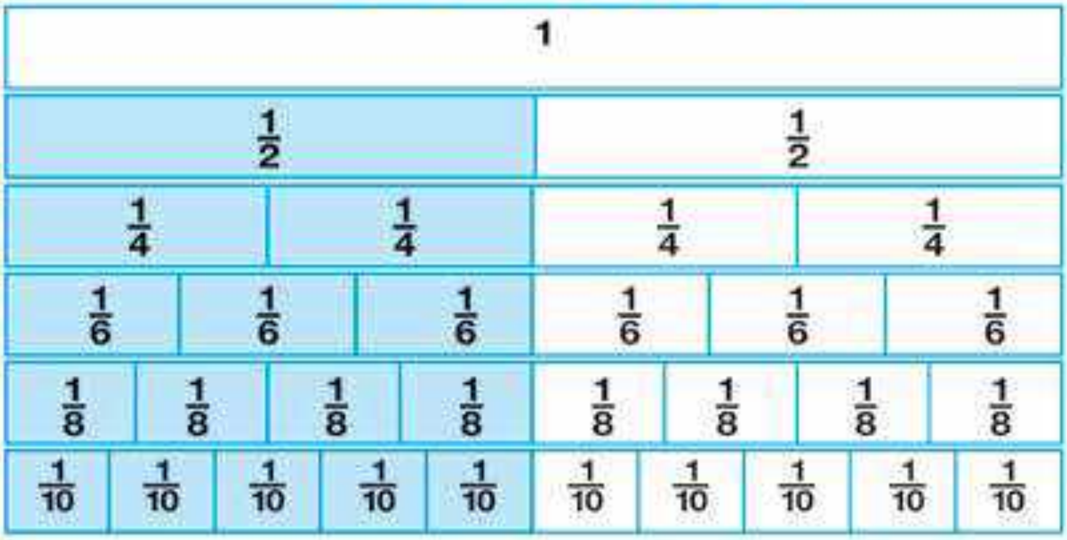
(7) Draw a shape that represents each of the following fractions:
$\frac{3}{4}$, $\frac{5}{6}$, $\frac{7}{8}$ and $\frac{4}{9}$

$\frac{3}{4}$ $\frac{5}{6}$ $\frac{7}{8}$ $\frac{4}{9}$

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Lesson 2

Equal Fractions



From the figure we notice that:

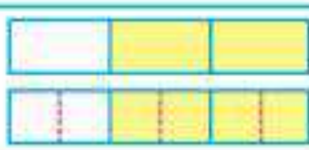
$\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10}$

(1) Deduce and complete:

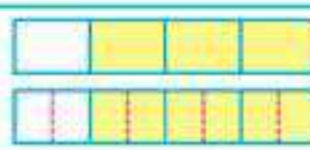
$\frac{1}{2} = \frac{3}{6} = \frac{5}{10} = \frac{....}{12} = \frac{....}{14} = \frac{8}{....} = \frac{10}{....} = \frac{....}{.....}$

(2) Complete with the help of the figure:

$\frac{2}{3} = \frac{....}{6}$



$\frac{3}{4} = \frac{6}{....}$



$\frac{....}{....} = \frac{3}{...}$



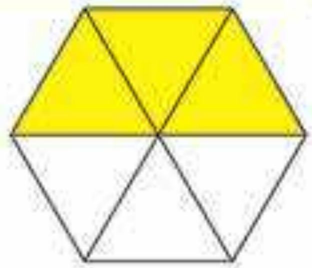
$\frac{1}{....} = \frac{....}{...}$



Lesson 3

Simplifying the Fractions

(1) From the opposite shape we can consider that the coloured part is $\frac{3}{6}$ of the whole figure and we can consider it as $\frac{1}{2}$ of the whole figure as well.
So we deduce that:



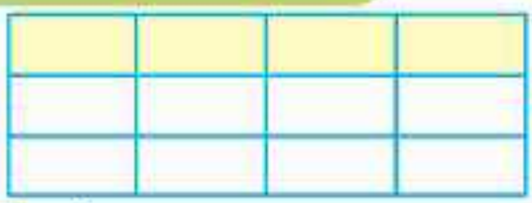
$$\frac{3}{6} = \frac{1}{2}$$

Then complete:

3 ÷ 3 = ... , 6 ÷ 3 = ...

(2) From the opposite shape we can deduce that:

$$\frac{4}{12} = \frac{1}{3}$$



4 ÷ .... = 1 , 12 ÷ .... = 3

$\frac{3}{6} = \frac{1}{2}$ (÷ 3 for the numerator, ÷ 3 for the denominator) , $\frac{4}{12} = \frac{1}{3}$ (÷ 4 for the numerator, ÷ 4 for the denominator)

(3) Complete:

$\frac{5}{10} = \frac{....}{....}$ (÷ 5, ÷ 5)

$\frac{6}{8} = \frac{3}{....}$ (÷ ..., ÷ ...)

$\frac{7}{21} = \frac{1}{.....}$ (÷ ..., ÷ ...)

(4) Complete:

$\frac{9}{27} = \frac{1}{....}$, $\frac{15}{25} = \frac{....}{5}$, $\frac{12}{18} = \frac{2}{....}$, $\frac{7}{70} = \frac{1}{....}$

(5) Simplify each of the following fractions:

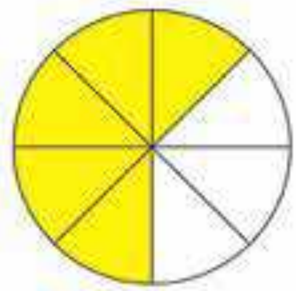
$\frac{4}{12} = \frac{....}{....}$, $\frac{3}{30} = \frac{....}{....}$, $\frac{6}{21} = \frac{....}{....}$, $\frac{35}{45} = \frac{....}{....}$

(6) Match equal fractions:

$\frac{3}{4}$	$\frac{1}{2}$	$\frac{14}{21}$	$\frac{4}{14}$
$\frac{7}{14}$	$\frac{15}{20}$	$\frac{2}{7}$	$\frac{2}{3}$

Ordering Fractions and Comparing Two Fractions

(1) Mohamed bought a pie divided into 8 equal pieces. He ate 5 pieces and gave his friend the remaining three pieces.



Complete:

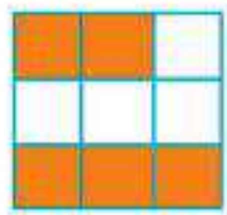
Mohamed ate $\frac{....}{8}$ of the pie and his friend took $\frac{....}{8}$ of the pie.

Which greater: Mohamed's share or his friend's share?

....

Complete: $\frac{....}{8} > \frac{....}{8}$

(2) Notice the shape and complete:



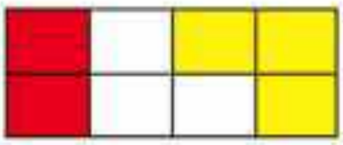
$\frac{....}{9} > \frac{....}{9}$

(3) Use the signs (< , = , or >) to compare:

$\frac{3}{4}$ ☐ $\frac{1}{4}$, $\frac{5}{7}$ ☐ $\frac{6}{7}$, $\frac{2}{9}$ ☐ $\frac{7}{9}$, $\frac{4}{5}$ ☐ 1 , $\frac{3}{3}$ ☐ 1

Adding and Subtracting the Fractions

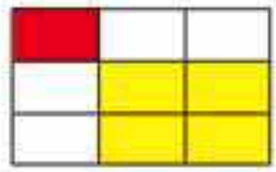
(1) Notice each of the following shapes and complete:



$\frac{2}{8} + \frac{3}{8} = \frac{....}{....}$

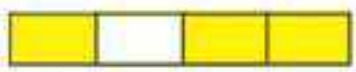


$\frac{1}{6} + \frac{2}{6} = \frac{....}{....}$



$\frac{....}{....} + \frac{....}{....} = \frac{....}{....}$

(2) Add:as in the example :



$\frac{1}{5} + \frac{3}{5} = \frac{....}{....}$

$\frac{1}{4} + \frac{3}{4} = \frac{....}{....} = \frac{....}{....}$

$\frac{3}{5} + \frac{1}{5} = \frac{....}{....}$

$\frac{2}{7} + \frac{3}{7} = \frac{....}{....}$

(3) Complete as in the example:

Example: $\frac{2}{9} + \frac{5}{9} = \frac{7}{9}$ Therefore $\frac{7}{9} - \frac{2}{9} = \frac{5}{9}$, $\frac{7}{9} - \frac{5}{9} = \frac{2}{9}$

$\frac{3}{7} + \frac{1}{7} = \frac{....}{....}$ Therefore $\frac{....}{....} - \frac{3}{7} = \frac{1}{7}$, $\frac{....}{....} - \frac{....}{....} = \frac{....}{....}$

$\frac{2}{5} + \frac{3}{5} = \frac{....}{....} = 1$ Therefore $1 - \frac{2}{5} = \frac{....}{....}$, $1 - \frac{....}{....} = \frac{....}{....}$

(4) Subtract:

$\frac{5}{8} - \frac{3}{8} = \frac{....}{....}$, $\frac{4}{9} - \frac{2}{9} = \frac{....}{....}$, $\frac{3}{11} - \frac{1}{11} = \frac{....}{....}$

(5) Complete:

$\frac{1}{7} + \frac{4}{7} = \frac{....}{....}$, $\frac{5}{12} + \frac{....}{....} = \frac{9}{12}$, $\frac{....}{....} + \frac{3}{10} = 1$

$1 - \frac{1}{2} = \frac{....}{....}$, $\frac{3}{5} - \frac{....}{....} = \frac{2}{5}$, $\frac{4}{7} - \frac{....}{....} = \frac{1}{7}$

$.... - \frac{3}{4} = \frac{1}{4}$, $..... + \frac{1}{3} = \frac{2}{3}$, $.... - \frac{1}{6} = \frac{1}{6}$

Activities
Unit 4

(1) Complete the following addition table:

+	$\frac{1}{7}$	$\frac{4}{7}$	$\frac{3}{7}$
$\frac{2}{7}$	$\frac{3}{7}$	......	......
$\frac{1}{7}$	......	......	......
......	......	1	......

(2)

(a) What is the fraction that gives the result $\frac{3}{5}$ if $\frac{2}{5}$ is added to it?

....

(b) What is the fraction that gives one whole if $\frac{3}{4}$ is added to it?

....

(c) What is the fraction that gives the result $\frac{3}{9}$ if subtracted from $\frac{4}{9}$?

....

(d) What is the fraction that gives $\frac{3}{9}$ if $\frac{4}{9}$ is subtracted from it?

....

(3) Express the following in fractions:

(a) A box of cheese contains 8 equal pieces - What is each piece in relation to the whole box?

....

(b) A pie was divided equally among four friends - What is each one's share?

....

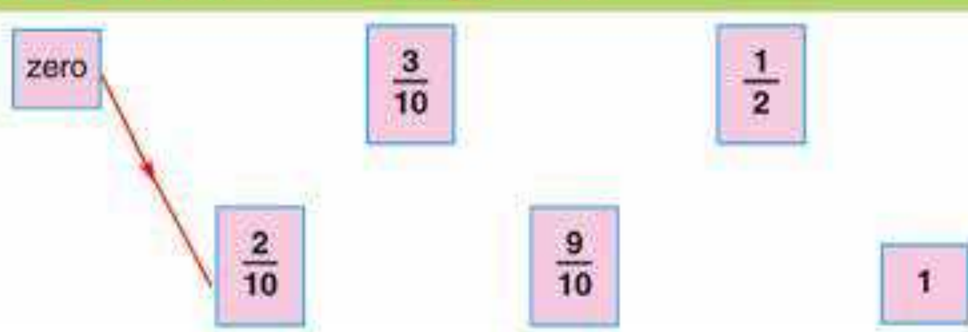
(c) A piece of land was divided into 5 equal pieces. One of the pieces was planted cotton. Two pieces were planted wheat and the other two pieces were planted rice. What does each of the following represent in relation to the original piece of land: Land planted cotton:.... , land planted wheat: ....., land planted rice: ......

(d) A class has 36 pupils. 8 pupils went on a trip what is the fraction that represents the number of pupils that went on the trip in relation to the number of pupils in the class?

Underline the correct answer and give a reason:

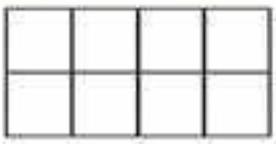
■ $\frac{3}{8}$ ■ $\frac{2}{9}$ ■ $\frac{1}{18}$ ■ $\frac{1}{4}$

(4) Complete drawing the arrows so that each arrow goes from the smallest to the greatest:



Exercises on Unit 4

(1) Colour the parts that represent the fraction written under each shape:



$\frac{5}{8}$

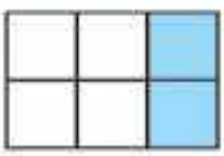


$\frac{2}{3}$

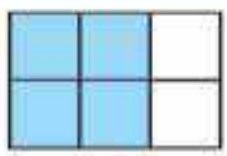


$\frac{2}{5}$

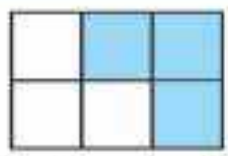
(2) Circle the fraction that represents the coloured part in each of the following shapes:



$\frac{1}{3}$, $\frac{2}{3}$, $\frac{2}{4}$, $\frac{3}{4}$



$\frac{3}{6}$, $\frac{2}{3}$, $\frac{1}{4}$, $\frac{3}{4}$



$\frac{1}{3}$, $\frac{1}{6}$, $\frac{1}{4}$, $\frac{1}{2}$

(3) Complete:

$\frac{1}{5} + \frac{2}{5} = \frac{....}{....}$ $\qquad$ $\frac{2}{7} = \frac{6}{....}$

$\frac{8}{9} - \frac{5}{9} = ...$ $\qquad$ $\frac{6}{10} = \frac{3}{....}$

$1 - \frac{5}{8} = ...$ $\qquad$ $\frac{8}{16} = \frac{....}{2}$

Circle what each of the following fractions equals:

(a) $\frac{3}{5}$ $\quad$ ($\frac{1}{5} + \frac{3}{5}$, $\frac{16}{20}$, $1 - \frac{2}{5}$)

(b) $\frac{2}{3}$ $\quad$ ($\frac{6}{9}$, $\frac{9}{11}$, $\frac{9}{15}$)

(c) $\frac{6}{7}$ $\quad$ ($\frac{3}{7} + \frac{3}{7}$, $\frac{9}{14}$, $\frac{12}{15}$)

(4) Complete using one of the signs (< , = , or >) :

$\frac{5}{8}$ .... $\frac{7}{8}$ $\frac{2}{3}$ 1

$\frac{11}{13}$ ...... $\frac{7}{13}$ 1 ...... $\frac{7}{7}$

(5) Order the following fractions ascendingly and descendingly:

$\frac{1}{10}$, $\frac{3}{10}$, $\frac{2}{10}$, $\frac{9}{10}$

Ascending order : .... , ... , ... , ...

Descending order : .... , ... , ... , ...

Unit 5

Measurement



Lesson 1

Measuring Temperature

(1) Centigrades:



(The thermometer)

How much do you know?

For what do we use the thermometer?

How is the thermometer used?

What is the normal human temperature?

What are the units used to measure temperature?

Mention some of the symptoms of human illness.

Complete:



Human temperature is measured by the use of.......

Temperature is usually estimated by units called.....

(2) Weather Conditions:

Television and other media broadcast the weather report several times every day. The weather report includes higher and lower temperatures in the capital cities of Egypt's governorates as well as some Arab and world capitals.





Besides temperatures, the weather report also includes a forecast of rains, wind, the ebb and flow (of sea waves), and other weather conditions. We now move to what came under "weather conditions" in a Cairo daily newspaper on a day in December:

"The weather is slightly warm during the day and cold at night. Vision decreases in the early morning. Fog in the Delta and Cairo. Low and medium clouds will hang over the northern and eastern parts of the country. Frost will accumulate in the inner parts of Sinai. Winds are

mostly Northern to North-eastern and mild to moderate.

Following are temperatures of some Egyptian cities as well as some Arab and world capitals.

City	Higher Temperatures	Lower Temperatures
Cairo	22°	11°
Alexandria	21°	12°
Mattrouh	19°	12°
Aswan	26°	11°
Assiut	23°	8°
Port Said	21°	16°
Sharm El Sheikh	26°	14°
Ismailiah	22°	11°
Suez	23°	11°
Areesh	22°	10°
Taba	32°	9°
Tor	23°	13°
Hurghada	28°	14°
Rafah	22°	9°
Saint Catherine	17°	7°
Siwa	21°	8°
Menya	23°	8°
Fayoum	22°	12°
Sidr	22°	13°
Sohag	23°	10°
Luxor	25°	10°
The New Valley	25°	11°
Halayeb & Shalateen	25°	16°
Tanta	21°	10°
Qena	24°	10°
Nuiba	25°	13°



City	Higher Temperatures	Lower Temperatures
Meccah	30°	16°
Sanaa	24°	11°
Abu Dhabi	23°	16°
Doha	20°	14°
Kuwait	16°	6°
Damascus	16°	1°
Beirut	20°	12°
Amman	15°	4°
Kharttoum	29°	16°
Baghdad	18°	7°
Algeria	20°	9°
New York	11°	5°
Athens	16°	7°
Rome	15°	1°
Paris	7°	6°
Madrid	10°	1°
Berlin	6°	4°
London	12°	4°
Moscow	4°	3°

Complete with the help of the previous table:

(a) In Egypt, the highest "higher temperature" was .... and the lowest was .... The highest "lower temperature" was .... and the lowest was ....

(b) If you wanted to go on a trip in Egypt in December, where would you prefer to go according to the temperatures?

.... , ... , ... , ...

(c) Among the Arab capitals mentioned in the table:

The highest "higher temperature" was .... and the lowest was ....

The highest "lower temperature" was .... and the lowest was ....

(d) Among world capitals:

The highest "higher temperature" was .... and the lowest was ....

The highest "lower temperature" was .... and the lowest was ....

(e) We know that Egyptian relics are one of the most important reasons that attract tourists to Egypt. Add another reason why tourists are attracted to Egypt (in the light of your present study).

....

....

....

(f) Mention an Arab capital whose temperatures are the closest to those of Cairo ....

What is the ideal temperature you prefer? ....

What are the benefits of the weather report?

....

....

....

(g) Draw arrows to show the direction of the winds on that day on the map of Egypt on the previous page.

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Lesson 2

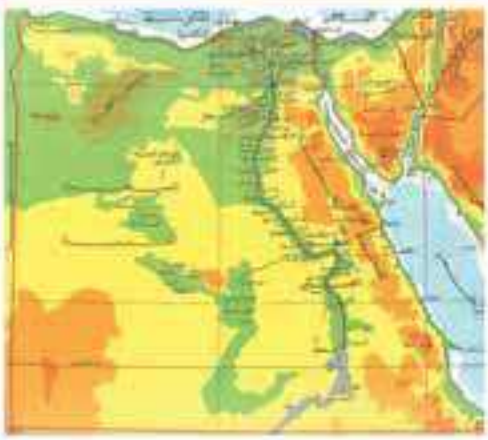
Measuring the Length

It is not preferred to use the units of length we studied before (the metre and the centimetre) in some cases such as calculating distances between cities. This is because these units are too small.
Therefore another larger unit has been agreed upon.

1 kilometre = 1000 metres and is abbreviated as 1 km = 1000 ms

(1) The following table shows the distance in kilometres between a number of cities and locations in the Arab Republic of Egypt.

Between Cities / locations	Distance in kilometres
Cairo- Taba (St. Catherine Road)	623
Cairo - Ahmed Hamdy Tunnel	131
Ahmed Hamdy Tunnel - St. Catherine	319



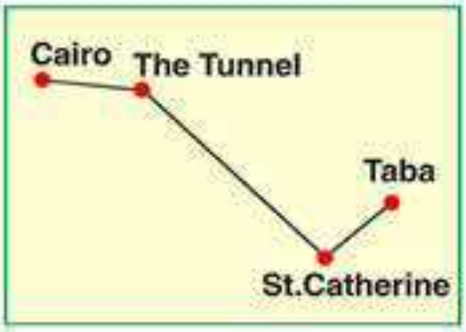
With the help of this table, find the following distances in kilometres:

(a) The distance between the Ahmed Hamdy Tunnel and Taba is ....

(b) The distance between Cairo and St. Catherine is ....

(c) The distance between St. Catherine and Taba is ....

(d) Put the distances you obtained in descending order: ...., ..., ...



(2) Answer the following questions:

(a) In which part of Egypt do St. Catherine and Taba lie? ....

(b) (For oral discussion) Mention what you know about the history of Sinai and Taba in particular.

(3) Change from kilometres to metres :

(a) 5 kilometres   5 km = ... m

(b) 15 kilometres   15 km = ... m

(c) 12 kilometres   12 km = ... m

(4) Change from metres to centimetres:

(a) 25 metres   (b) 43 metres   (c) 570 metres

25 m = ... cm   43 m = ... cm   570 m = ... cm

Use a calculator to check your answers.

(5) Choose a suitable unit of length (centimetre - metre - kilometre) for each of the following measurements:



(a) The distance between Cairo and Amman

....



(b) The length of the swimming pool

....



(c) The distance between Cairo and Alexandria

....

(d) The length of a pencil ....



(6) What is your estimation for the following lengths? Underline the answer you find suitable:

The perimeter of the playground: (100 km - 100 m - 1 km)

The distance between two Egyptian cities: (10000 km - 3000 km - 200 km)

The length of a school notebook : (25cm - 1m - 1km)

The height of a child: (140 cm - 2 m - 1 km)

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Lesson 3

Measuring Weight

At the greengrocer's, the grocer's, the butcher's, the bakery, and others, the unit of weight used is usually greater than the gram. It is the kilogram.



1 kilogram = 1000 grams

The scales shown in the picture is divided into grams. The maximum weight it can bear (without adding any other weights on it) is kilogram.



Can you use these scales to weigh something greater than a kilogram (3 kilograms) for example? How?

(1) Sawsan went to a shop that sells vegetables and fruits. She bought the following:

1 kgm of tomatoes

1 kgm of potatoes

1 kgm of cucumbers

2 kgm of oranges

2 kgm of peas

What is the total sum she paid?

....

....

....

Price list

Items	Price/ kgm
tomatoes	L.E. 3
green peppers	L.E. 2
peas	L.E. 4
marrow	L.E. 3
cucumber	L.E. 2
onions	L.E. 3
potatoes	L.E. 3
bananas	L.E. 4
oranges	L.E. 2
apples	L.E. 9
guavas	L.E. 3

(2) Change the following into grams:

(a) 5 kgm ....

(b) 23 kgm ....

(c) 18 kgm ....

(3) Choose a suitable unit of weight (kilogram or gram) for each of the following measurements:



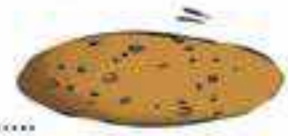
meat ....



jewellery ....



a bottle of medicine ....



pastry ....

(4) What is your estimation of the following weights? Underline the answers you find suitable:

The weight of a loaf of bread .... (150 gm - $\frac{1}{2}$ kgm)

The weight of an elephant .... (10000 kgm - 300 kgm)

The weight of jewellery .... (20 gm - 10 kgm)

The weight of meat .... (20 gm - 2 kgm)

The weight of 20 olives .... (400 gm - 7 kgm)

Discuss your suggestion for rationing.

(5) Complete:

3 kgm = ... gm , 4500 gm = ... kgm and .... gms

4000 gm = ... kgm , ... gm = 3 kgm and 30 gm

(6) If the price of a gram of silver is three pounds, how much is a silver pot that weighs 2 kgm?

....

Lesson 4

Measuring Time

(1) Complete with the help of the calendar in the following figure:

Calendar

	January	February	March	April	May	June
Saturday	6 13 20 27	3 10 17 24	31 3 10 17 24	7 14 21 28	5 12 19 26	30 2 9 16 23
Sunday	7 14 21 28	4 11 18 25	4 11 18 25	1 8 15 22 29	6 13 20 27	3 10 17 24
Monday	1 8 15 22 29	5 12 19 26	5 12 19 26	2 9 16 23 30	7 14 21 28	4 11 18 25
Tuesday	2 9 16 23 30	6 13 20 27	6 13 20 27	3 10 17 24	1 8 15 22 29	5 12 19 26
Wednesday	3 10 17 24 31	7 14 21 28	7 14 21 28	4 11 18 25	2 9 16 23 30	6 13 20 27
Thursday	4 13 18 25	1 8 15 22	1 8 15 22 29	5 12 19 26	3 10 17 24 31	7 14 21 28
Friday	5 12 19 26	2 9 16 23	2 9 16 23 30	6 13 20 27	4 11 18 25	1 8 15 22 29

	July	August	September	October	November	December
Saturday	7 14 21 28	4 11 18 25	1 8 15 22 29	6 13 20 27	3 10 17 24	1 8 15 22 29
Sunday	1 8 15 22 29	5 12 19 26	2 9 16 23 30	7 14 21 28	4 11 18 25	2 9 16 23 30
Monday	2 9 16 23 30	6 13 20 27	3 10 17 24	1 8 15 22 29	5 12 19 26	3 10 17 24 31
Tuesday	3 10 17 24 31	7 14 21 28	4 11 18 25	2 9 16 23 30	6 13 20 27	4 11 18 25
Wednesday	4 11 18 25	1 8 15 22 29	5 12 19 26	3 10 17 24 31	7 14 21 28	5 12 19 26
Thursday	5 12 19 26	2 9 16 23 30	6 13 20 27	4 11 18 25	1 8 15 22 29	6 13 20 27
Friday	6 13 20 27	3 10 17 24 31	7 14 21 28	5 12 19 26	2 9 16 23 30	7 14 21 28

(a) The months of the year are: ....

(b) 1 year = ... months.

(c) The days of the week are: ....

(d) 1 week = ... days

(e) The ordinal numbers corresponding the months are:

January (1) , February (2), ...

(f) The months that have 30 days are: ....

(g) The months that have 31 days are: ....

(h) February from this year has .... days.

(i) The number of days from this year = (30 × ......) + (31 × ......)

+ ...... = ... + ... + ... = ... days.

(j) What is the date of 7 / 7 from this year?

(k) What is the date of the first Thursday in December from this year? ....

Days , hours, and minutes

1 day = 24 hours , 1 hour = 60 minutes

(1) How many hours are there in two days? ....

(2) How many minutes are there in 10 hours? ....

(3) How many minutes are there in half an hour? ....

(4) How many hours are there in ten days? ....

(5) How many minutes are there in two hours and a half?........................ .

(6) How many minutes are there in a day? ....

(2) Complete:

(a) 30 hours = 1 day and ...... hours.

(b) 100 minutes = one hour and .... minutes.

(c) 50 hours = ... days and .... hours.

(d) 150 minutes = ... hours and ...... minutes.

(3) Join the cards that express equal time:

1 day and 6 hours | 66 minutes | 12 hours

30 hours | 30 minutes

half a day | half an hour | an hour and 6 minutes

(4) Rearrange the following periods of time ascendingly: (From the shorter to the longer period of time):

(a) Two days, 40 hours, 1 day and 10 hours. .... , ... , ...

(b) 3 months, 100 days , 1000 hours. .... , ... , ...

Activities
Unit 5

(1) (a) What is the agency that studies weather conditions and expectation in Egypt?

.... (Have you visited it on a school trip?

(b) What kind of clothes would you advise your classmates to wear on the days with the following temperatures?

higher	lower	
37°	30°	....
15°	10°	....
22°	17°	....

(2) (a) What is the birthday of someone who celebrates it only once every 4 years?

....

(b) Which is heavier: 10 kilograms of iron or 10 kilograms of cotton?

....

(3) How long is the period of time that starts on the beginning of Monday, 15 October, 2009 and ends with the end of Saturday, 27 October 2009? ....

(4) A person started a job on the first of March and finished it at the end of August of the same year. How many months did he spend doing this job? ....

(5) Medhat walks a distance of 2 kilometres in 20 minutes. How much time does it take him to walk a distance of six kilometres if he walks consistently (with the same speed)? What is the distance he covers in an hour and a half?

....

....

Exercises

Unit 5

(1) Complete:

4 metres = ... centimetres. , 3 weeks = ... days

3 kilograms = ... grams. , 1 year and two months = ... months.

(2) (a) What is the unit used to measure temperature?...............

(b) What is the normal human temperature?....................

(3) Arrange ascendingly:

(a) 2400 gram, 250 grams , 1 kilogram , 2 kilograms.

....

(b) 15 months, 1 year , 500 days, one year and two months , 16 days.

....

(c) 3 kilometres, 2 kilometres and helf , 500 metres, 2000 metres.

....

(4) What is the suitable unit ....

(a) for measuring the distance between two countries?..........................

(b) for calculating the time of a school period?.......................................

(c) for measuring the weight of gold work?..

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Unit 6
Statistics and Probability



Lesson 1

Representing Data

(1) A report on the traffic, number of ships and container ships sailing from the Mediterranean Sea to the Red Sea found in the records of the Suez Canal Authority was as follows: Saturday: 30, Sunday 32, Monday : 45, Tuesday : 55, Wednesday : 37, Thursday : 38, Friday : 52. Record this data in the following table:



Day	Sat.	Sun.	Mon.	Tue.	Wed.	Thu.	Fri.
Number of ships and container ships							

Answer the following questions according to the table:

(a) Which day had the greatest number of traffic from the Mediterranean Sea to the Red Sea during this week?.........................

What is the number of ships?.....................................

(b) Which day had the smallest number of traffic from the Mediterranean Sea to the Red Sea during this week?

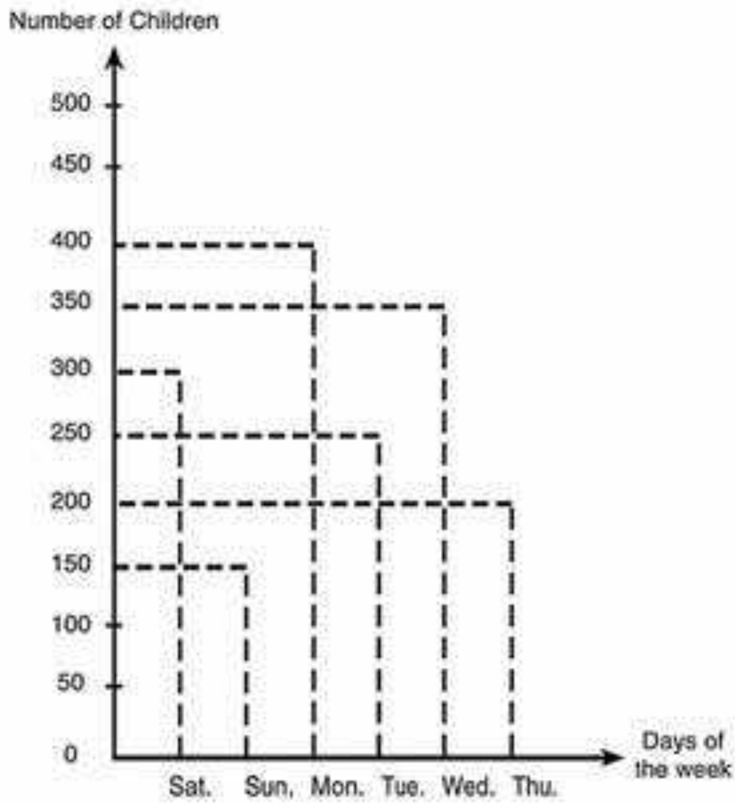
What is the number of ships?.........................

(c) What is the difference between the greatest and the smallest number of ships and container ships that travelled from the Mediterranean Sea to the Red Sea during that week?........ — .... = ... ships and container ships.

(d) What are the cities that lie on the Suez Canal?......., ..., ...

(e) (For oral discussion) Tell a historical story about this city.

(2) The following figure shows the number of children vaccinated against polio in one of the weeks in one of Egypt's governorates. Answer the following questions according to the figure.



(a) On what day was the greatest number of children vaccinated?

What is the number of those children? ....

(b) On what day was the smallest number of children vaccinated?

What is the number of those children? ....

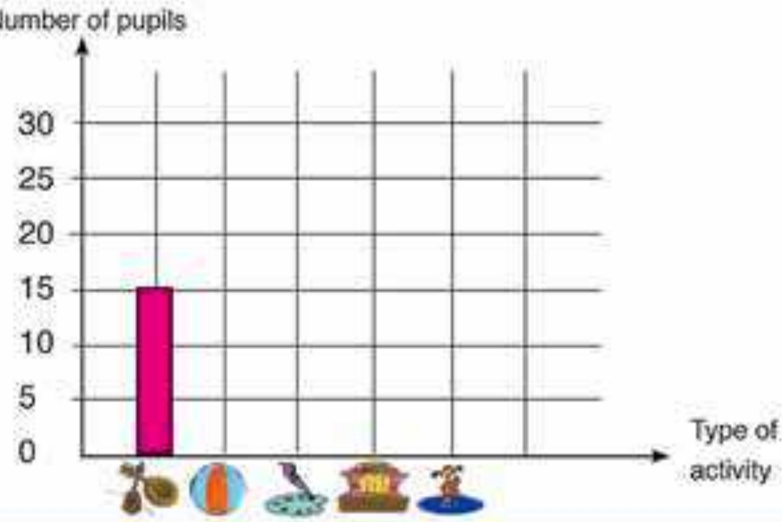
(c) Complete the data in the following table:

Day	Sat.	Sun.	Mon.	Tue.	Wed.	Thu.	Fri.
Number of children							

(3) The number of the third primary pupils who joined different activity clubs in your school were as follows:

Activity					
Number	15	25	20	15	10

Complete the figure:



(4) The following table shows the approximate population of one of the villages in the Arab Republic of Egypt in thousands (approximately) in the given years. Complete the graph (With the use of bar-lines as in the previous problem.)

Year	Population in thousands
1950	20
1960	25
1970	40
1980	50
1990	55
2000	70



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From the previous data answer the following questions:

(a) How much did the population of the village increase from 1950 to 2000?

(b) In which periods was there a great population increase?

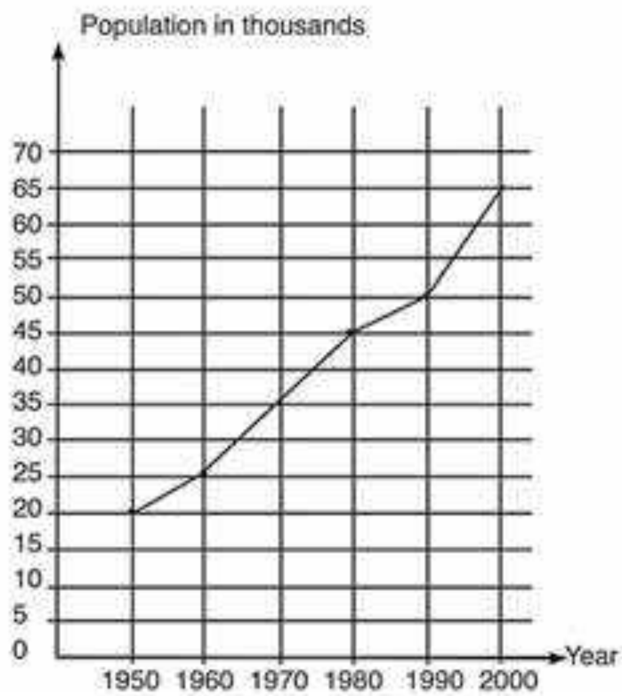
(c) What are some of the problems arising from over population?

(d) (For oral discussion) What are your suggestions for solving this problem?

Representing data with a broken line:

The following figure shows the data in the previous problem represented with a broken line.

Compare the broken line to the columns and deduce how the points on this line were defined.



Lesson 2

Probability

Certain / Possible / Impossible

(1) Complete by writing "certain" , "possible" or "impossible":

(a) It is .... to rain gold.

(b) It is .... that the sun will rise in the morning.

(c) It is .... that I will get a high grade in mathematics.

(d) It is .... to find a man three metres high.

(2) What do we expect?





Imagine that you closed your eyes and stirred the balls in each container very well and drew one ball out of each.
What do you expect the colour of the drawn ball to be in each case?

(a) The first container:

Complete:

- It is certain that the ball drawn from the first container will be .... in colour.
- It is impossible that it will be in colour ....



(b) The second container:

- It is possible that the ball drawn from this container will be .... in colour.
- It is also possible to be in colour ....
- It is impossible to be in colour ....



(c) The third container:

- It is certain that the ball drawn from the third container will be .... in colour.
- It is impossible to be in colour ....



Guess and expect:

(1) Assume (as we did previously) that someone closed his eyes and stirred the balls in every container very well and then drew one ball from each container. Can you decide the number of the container from which:



(1) (2) (3)

You expect to a great extent that the drawn ball will be:

(a) red (container number ....)

(b) yellow (container number ....)

(c) blue (container number ....)

You expect to a less extent that the drawn ball will be:

(d) blue (container number ....)

(e) red (container number ....)

(2) From the previous experiment, decide on the extent of your expectations for each of the following. Write "great" , "moderate", weak" or "none"

(a) It is possible for the ball drawn from the first container to be blue: ....

(b) It is possible for the ball drawn from the second container to be yellow ....

(c) It is possible for the ball drawn from the third container to be red ....

(d) It is possible for the ball drawn from the third container to be blue ....

Calculating probability:

If someone closed his eyes and stirred the balls put in the container shown in the opposite figure very well and drew one ball from it, the drawer ball will be either blue or yellow.



(1) In your opinion is there a greater probability for the drawn ball to be blue or yellow? ....

(2) Is there a probability that the drawn ball could be red? ....

N.B. When an event is impossible we say that the probability of it happening = zero. When it is certain to happen we say that the probability of it happening = 1. If the event, however, is possible the probability of it happening is a fraction (between 0 and 1).

In the previous example:

- The probability of the drawn ball being blue is $\frac{1}{5}$

  (This is because the number of blue balls = 1 and the whole number of balls = 5)

- The probability of the drawn ball being yellow is $\frac{4}{5}$

  (This is because the number of yellow balls = 4 and the whole number of balls = 5)

(3) Look at the opposite figure, perform the previous experiment and complete:



- The probability of the drawn ball being red = ...
- The probability of the drawn ball being yellow = ...
- The probability of the drawn ball being blue = ...

(4) Look at the opposite figure, perform the previous experiment and complete:

- The probability of the drawn ball being blue = ...
- The probability of the drawn ball being red = ...



(5) If we flip a coin, we get either heads or tails. Complete:

- The probability of getting a head= $\frac{...}{...}$
- The probability of getting a tail= $\frac{...}{...}$

(Explain why?)



(6) In a class of 40 pupils, 23 are boys and 17 are girls. One day, one of the pupils was absent.

What is the probability of the absent pupil being a boy?

$\frac{...}{...}$ (Why?)



Activities Unit 6

(1) Choose the correct answer from the following answers in brackets about collecting data. Give at least one extra example to support your point of view:

(a) Finding the height of a number of plants................ .

(counting and recording - measuring - asking others)

(b) The number of cars entering a certain garage ....

(counting and recording - measuring - asking others)

(c) Pupils' preferences in joining different activity clubs ....

(counting and recording - measuring - asking others)

(2) The following table shows the approximate number of planes that landed or departed from Egypt in five consecutive years (in thousands):

Year	First	Second	Third	Fourth	Fifth
Number of planes in thousands	26	30	35	35	40

(a) Represent this data in columns and with a broken line.

(b) Mention the names of six airports in Egypt and the names of the governorates in which they are found. (Discuss with your teacher)

(c) Mention some of the places you advise Egyptians and tourists to visit in each of these governorates. (Discuss with your teacher)

(3) Mohamed wrote the names of 7 of his friends on cards as follows:

Said	Ahmed	Khaled	Mina	Salem	Ayman	Amgad

If we turn these cards, change their position and draw one (without seeing it), the probability that the name written on the drawn card will:

(a) begin with "S"? is ....

(b) begin with "A"? is ....

(c) begin with "W"? is ....

(d) have 4 letters? is ....

(e) have 5 letters? is ....

Complete:

(a) It is certain that the number of letters of the name written on the drawn card is ....

(b) It is impossible that the name written on the card will begin with the letter "....................................." drawn.

Exercises Unit 6

(1) The recorded temperatures in one of the weeks from saturday to the following Friday were as follows: 33°, 31°, 30° , 38°, 34°, 29°, and 27°:

Record these data in a table and answer the following questions.

(a) The lowest temperature was on ....

(b) The difference between the highest and lowest temperatures

= .... − .... = ... °

(c) The hottest day was ....

(d) The temperatures was less than 30° on .... , ... , ...

(2) The following table shows the donations of six people to one of the hospitals:

Name of person	Nabila	Aly	Michelle	Sameh	Mervat	Youssef
The amount donated in pounds	50	70	65	55	75	80

Represent these data by a broken line

(3) Choose one of the answers in brackets to express the probability of the occurrence of the following incidents:

(a) The sun rises in the west ....
(certain - possible - impossible)

(b) A pupil goes to school ....
(certain - possible - impossible)

(c) I watch television 4 times a week ....
(certain - possible - impossible)

(d) I go on a school trip ....
(certain - possible - impossible)

(4) What is the probability of seeing an odd number of dots on the face of a piece of dice when you throw it?

General Exercises (1)

(1) Find the result:

549 × 7 = ...   9009 ÷ 9 = ...   653 × 8 = ...

$$6 \overline{)4200}$$

$$\begin{array}{r} 2104 \\ \times \quad 5 \\ \hline .... \end{array}$$

$$4 \overline{)8400}$$

(2) Underline the correct answer:

(a) $\frac{2}{5}$ = ... ($\frac{1}{5} + \frac{2}{5}$, $\frac{16}{20}$, $1 - \frac{3}{5}$)

(b) $\frac{1}{3}$ = ... ($\frac{7}{10}$, $\frac{9}{11}$, $\frac{5}{15}$)

(c) $\frac{5}{7}$ = ... ($\frac{3}{7} + \frac{2}{7}$, $\frac{9}{14}$, $1 - \frac{12}{15}$)

(3) Complete:

The day = ... hours.   2 kgm = ... gm.   3 km = ... m = ... cm.

(4) The temperatures recorded in one of the weeks were as follows:

Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Temperatures	22°	23°	21°	18°	19°	20°	21°

Answer the following questions:

(a) On what day was the temperature the highest?..........

(b) On what day was the temperatures the lowest?..........

(c) Which two days have equal temperatures?...........

(d) What kind of clothes do you advise people to wear on these days? ....

(5) Adel bought 3 toys for 12 pounds each. How much do they all cost?

The price of toys = ... × .... = ... pounds.

General Exercises (2)

(1) Complete:

(a) 8 , 16 , 32 , ..., ... , ...

(b) 25 , 50 , 75, ... , ... , ...

(2) Complete:

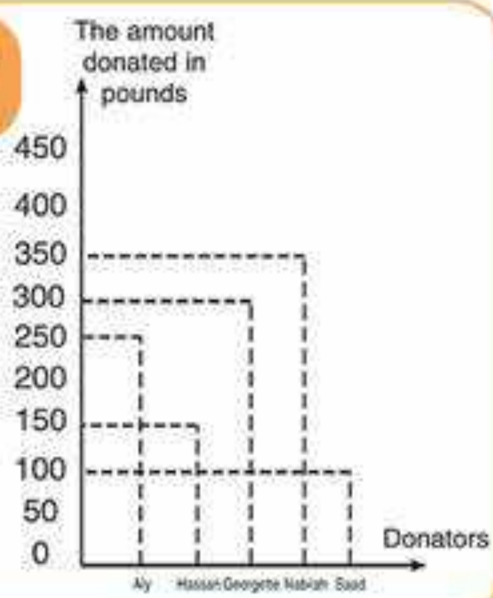
(a) $\frac{2}{5} + \frac{2}{5} = \frac{....}{....}$ (b) $1 - \frac{7}{8}$ $\frac{....}{....}$

(3) Complete using one of the signs (< , = , or >):

(a) $\frac{3}{8}$ .... $\frac{5}{8}$ (b) $\frac{3}{4}$ .... 1 (c) $\frac{12}{13}$ ..... $\frac{9}{13}$ (d) 1 .... $\frac{5}{5}$

(4) The opposite figure shows the donations of some citizens to one of the orphanages:

Record these data in a table and find the difference between the greatest and smallest donations in pounds.



(5) A father distributed 200 pounds equally among his four children during the feast. What was each one's share?

Each of the four children's share = ... ÷ .... = ... pounds.

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General Exercises (3)

(1) Complete using one of the signs (< , = , or >):

(a) 254×6 ☐ $6400 \div 4$ (b) 928×4 ☐ 464×8

(c) $1071 \div 3$ ☐ 119×3

(2) Colour the parts that represent the fractions written under each shape:



$\frac{3}{8}$



$\frac{2}{3}$



$\frac{4}{5}$

(3) Arrange each of the following sets ascendingly:

(a) 2 kgm , 3 kgm , 370 grams , 2900 gm.

The ascending order: ...., ..., ..., ...

(b) 60 m , 30 cm , 5200 cm , 50 m , 2 cm

The ascending order: ...., ..., ..., ...

(4) The Suez Canal Authority recorded the traffic in the Canal in one of the weeks as follows:

Day	Sat.	Sun.	Mon.	Tue.	Wed.	Thu.	Fri.
Number of ships and container ships	60	70	90	110	80	70	100

Represent this data by means of a broken line.

(5) Walaa bought a dress for 66 pounds and 3 books for 13 pounds each. If she had 120 pounds, how much money does she have left?

Price of the books = ... × .... = ... pounds.

Total of what Walaa paid = ... + ... = ... pounds.

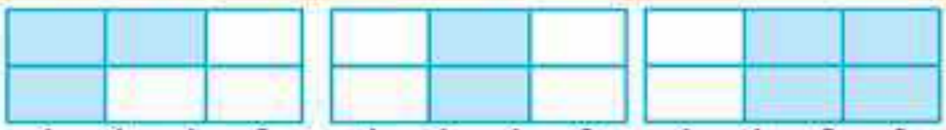
Money remained with her = ... – .... = ... pounds.

General Exercises (4)

(1) $379 \times 3 =$ .... $1352 \div 8 =$ .... $653 \times 7 =$ ....

$9 \overline{)8109}$ $5200 \times 5 =$ .... $4 \overline{)4004}$

(2) Circle the fraction that represents the coloured part in each of the following shapes:



$\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{3}{4}$ $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{3}{4}$ $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$

(3) Complete:

(a) Temperature is usually measured in ....

(b) Jewellery is usually weighed in ....

(4) Circle the suitable answer in brackets to express the probability of the following incidents:

(a) The sun rises in the east..... (certain - possible - impossible)

(b) My hair will become green........ (certain - possible - impossible)

(c) The probable appearance of 2 on the face of a piece of dice when it is thrown. ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{6}$)

(5) Shereen's father gave her 488 pounds. Shereen bought stationery for 72 pounds, the school uniform for 108 pounds and two toys for 24 pounds each, How much money does she have left ?

Shereen Paid = ... + ...= .... pounds

money reminder withe her = ... - .... = ... pounds

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General Exercises (5)

(1) Circle the odd numbers:

(a) 4651 , 9754 , 15676 , 18643 , 10865 , 13978

(b) The following division operation looks wrong at first sight, what is the reason?

1779 ÷ 6 = 596. It is wrong because......................

(2) Order the following fractions ascendingly and descendingly:

$\frac{1}{2}$, $\frac{2}{5}$, $\frac{7}{10}$, $\frac{6}{10}$

The ascending order: ...., ... , ...

The descending order: ...., ... , ...

(3) Circle the answer that is either correct or close to the correct answer:

(a) Among the standard units we use to measure unit length is .....

(kilogram - the gram - the metre)

(b) A normal human's temperature is ..... (35° - 37° - 39°)

(c) The number of days in a year is ..... (360 days - 365 days - 370 days)

(4) The following table shows the approximate population of one of the villages in the Arab Republic of Egypt in thousands from 1950 to 2000. Represent this data in broken line:

Year	1950	1960	1970	1980	1990	2000
Population in thousands	20	25	40	50	55	70

(5) The School Buildings Authority built 9 Primary schools . If each school costs 2647 pounds, then how much did building these schools cost?

The cast of building these schools = ... x .... = ... pounds

General revision

On

The Second Term

3rd primary

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The first unit (Multiplication)

The first question : Complete :

(1) $6 \times 3 = \dots\dots \times 6$

(2) $4 \times 5 = 5 \times \dots\dots$

(3) $\dots\dots \times 2 = 2 \times 7$

(4) $9 \times \dots\dots = 9$

(5) $\dots\dots \times 8 = 8 \times \dots\dots = 16$

(6) $6 \times 3 = 6 \times 2 + \dots\dots \times \dots\dots$

(7) $7 \times 5 = 7 \times 3 + 7 \times \dots\dots$

(8) $9 \times 6 = 9 \times 4 + 2 \times \dots\dots$

(9) $8 \times 11 = 11 \times 5 + \dots\dots \times 3$

(10) $3 \times 5 + 3 \times 2 = 3 \times \dots\dots$

(11) $7 \times 2 + 2 \times 7 = 7 \times \dots\dots$

(12) $5 \times 2 + 5 \times \dots\dots = 25$

(13) $3 \times 2 \times 5 = 5 \times \dots\dots = \dots\dots$

(14) $\dots\dots \times 2 = 2 \times 2 \times 2 = \dots\dots$

(15) $2 \times \dots\dots = 1 \times \dots\dots + 1 \times \dots\dots$

(16) $5 + 5 + 5 + 5 + 5 = \dots\dots \times \dots\dots = \dots\dots$

(17) $6 \times 4 = \dots\dots$

(18) $5 \times 4 \times 6 = 6 \times \dots\dots = \dots\dots$

(19) $3 \times 15 = 3 \times \dots\dots + 3 \times 7 = \dots\dots + \dots\dots = \dots\dots$

(20) $12 \times 4 = 12 \times 3 + \dots\dots = 12 \times 5 - \dots\dots \times \dots\dots = 48$

(21) $9 \times 8 = 9 \times 7 + 9 \times \dots\dots = 9 \times 8 - 9 \times \dots\dots = 72$

(22) $6 \times 15 = 6 \times 11 + 6 \times \dots\dots = 6 \times 10 + 5 \times \dots\dots = \dots\dots$

(23) $5 \times 4 = 5 + \dots\dots + \dots\dots + \dots\dots = \dots\dots$

(24) $5 \times \dots\dots = 35$

(25) $\dots\dots \times 8 = 8$

(26) $11 \times \dots\dots = 77$

The second question :

Put the suitable mark of (> , < , =) in the suitable place :

(1) 6×5	☐	5×7	(2) 3×8	☐	$8 \times 2 + 1 \times 8$
(3) 5×7	☐	7×4	(4) 1×2	☐	$3 \times 1 - 1 \times$ zero
(5) 9×3	☐	3×8	(6) 6×5	☐	5×7
(7) $(5 - 3) \times 2$	☐	2×3	(8) $(6 - 0) \times 7$	☐	7×6
(9) $(9 \times 35) - 40$	☐	10	(10) $(9 \times 12) - 8$	☐	108
(11) 30	☐	$3 \times 5 + 5 \times 3$	(12) $(56 - 16)$	☐	5×9
(13) 12×3	☐	2×12	(14) 25×4	☐	$25 \times 5 - 25$
(15) 6×5	☐	15×3	(16) 9×4	☐	$9 \times 3 + 9$

(17) (200 – 195) × 5	☐	6 × 5	(18) (35 + 5)	☐	40 × 2
(19) (6 × 9) – 44	☐	5 × 2	(20) (10 – 4) × 3	☐	9 × 3
(21) 64 – (6 × 9)	☐	10	(22) 7 × 5	☐	7 + 7 + 7 + 7
(23) 15 + 15 + 15	☐	2 × 15	(24) 50 – 40	☐	3 × 10
(25) 7 × 11	☐	11 × 7	(26) 9 × 8	☐	10 × 8
(27) 6 × 6 + 64	☐	90	(28) 100	☐	5 × 5 + 75
(29) 200	☐	300 – (10 × 20)	(30) 75	☐	(20 × 4) – 10
(31) 31	☐	(40 – 10) × 1	(32) 245 – 145	☐	10 × 9
(33) 70 + 20	☐	900	(34) 63 – 63	☐	9 × 2
(35) 70 – 35	☐	5 × 7	(36) (88 – 80) × 7	☐	54
(37) (8 × 4) + 12	☐	2 × 11	(38) 3 × 10	☐	3 × 3 × 3 × 3

The third question :

Write the following numbers in digits :

(1) Forty five tens = ...

(2) ten = ...

(3) Seventy = ...

(4) Five hundreds and sixty tens = ...

(5) Sixty four tens = ...

(6) Fifteen tens = ...

(7) Ninety eight tens = ...

(8) Nine tens = ...

(9) Thirty one tens = ...

(10) Two tens = ...

(11) Three hundreds tens = ...

(12) Twenty three hundreds = ...

(13) Two hundreds

(14) Nine hundreds

The fourth question :

(1) If the price of one kg. of orange is 3 pounds. How much is the price of ten kg. s

Solution : The price of the orange = ... × .... = ... pounds.

(2) Karol takes 5 pounds from her father every day. Calculate what Karol takes in a week ?

Solution : What karol takes in a week = ... × .... = ... pounds.

(3) There are two fish's aquarium , the price of each is 250 pounds. What is the price of two aquariums ?

Solution : The price of two aquariums = ... × .... = ... pounds.

(4) Andro bought three boxes of colours , the price of each is ten pounds , He bought also 10 pens for one pounds each. Calculate what Andro paid.

Solution : The price of colours boxes = ………… × ………… = ………… pounds.

What Andro paid = ………… × ………… = ………… pounds.

The fifth question :

In a shop for saling electric sets ,

The price of electric sets was shown on it

Complete the following :

The set	The number	The price of the unit	Total price
Fridge	20	2000	
Fan	25	200	
hot air set	35	300	
heater	15	200	
blender	10	100	
The sun			

The six question :

Choose the correct answer from those between brackets :

(1) 400 × 2 ☐ 90 × 10 (> , < , =)

(2) One kilo metre ☐ 500 metre (> , < , =)

(3) 30 × 5 × 2 ☐ 300 (> , < , =)

(4) 25 × 4 × 20 ☐ 600 (> , < , =)

(5) 700 ☐ 2 × 35 × 5 (> , < , =)

(6) 3900 ☐ thirty nine 10 (> , < , =)

(7) Two tens + 5 tens ☐ 80 (> , < , =)

(8) 7 × 20 × 50 ☐ 6000 (> , < , =)

(9) eight thousands ☐ 7500 + 500 (> , < , =)

(10) 2000 + 200 ☐ 4000 (> , < , =)

(11) 4500 ☐ Forty five tens (> , < , =)

(12) 800 + 200 ☐ Two thousands (> , < , =)

The seventh question :

(1) $4 \times$ .... $\times 100 = 12 \times$ .... = ...

(2) $6 \times 3 \times 100 =$ ....

(3) 5 tens + one ten = ...

(4) .... $\times$ .... $\times 1000 = 3000$

(5) Seven tens = ...

(6) $2 \times 5 \times 28 = 28 \times$ .... = ...

(7) $30 \times 300 =$ ....

(8) $66 \times 1000 =$ .... thousands.

(9) $10 \times 1000 =$ .... and it is read ....

(10) $4 \times 250 =$ .... $\times 500$

(11) 7 kilograms = ... grams.

(12) 5350 metres = ... kilometres + 350 metres.

(13) $4 \times 6 \times 10 =$ .... $\times 10$

(14) 4 metes = ... cm.

(15) $200 + 300 + 500 =$ ....

(16) half kilogram = ... gram.

(17) $9 \times$ .... $= 900$

(18) $8000 = 2000 \times$ ....

(19) $3 \times 5 =$ ....

(20) $2000 =$ .... $\times 2000$

(21) Thirty tens = ...

(22) $650 +$ .... $= 750$

(23) $7 \times 200 = 7 \times$ .... $\times$ ....

(24) $3000 = 500 +$ ....

(25) 25 metres = ... cm.

(26) Twenty four hundreds = ...

1 A man distributed 9 pieces of sweets his three sons equally. How many sweets do every son have ?

Solution : The number of sweets to every son = ... ÷ .... = ... pieces

2 A box contains 15 balls , it is wanted to divide them between Karol and Andro. Complete :

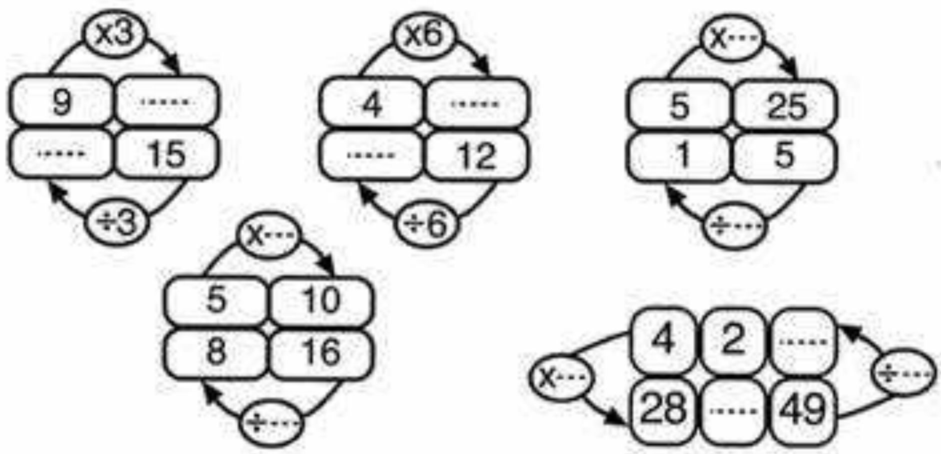
(a) The greatest number of balls which each one has = ...

(b) The number of the remained balls 15 = ... × .... + ...

3 Distribute equally and complete there are 8 oranges and 4 persons each person get

8 ÷ 4 = ...

4 ***Complete :***



5 45 ÷ .... = 9

6 Yasmin bought 2 computer sets 1000 pounds for each. Find what Yasmin of paid in pounds.

Solution : What Yasmin paid = ... × .... = ... pounds.

7 7 teams participated in match of volley ball in a competition. If each team consists of 6 players. What is the number of players ?

Solution : The number of players = ... × .... = ... players.

8 Divide 50 sandwitches of cheese among 10 persons equally. What is the share of each of them ?

Solution : The share of each person = ... ÷ .... = ... sandwitches

9 If you have 25 pounds , How many kilograms of grapes can you buy of the price of one kilogram of grapes is 5 pounds.

Solution : The number of kilograms = ... ÷ .... = ... kilograms

10 Put the suitable mark of (< , > , =)

(1) $54 \div 6$	☐	8	(2) $55 \div 5$	☐	$5 + 6$
(3) $100 \div 4$	☐	5×5	(4) 49×1	☐	7×7
(5) $18 \div 2$	☐	3×6	(6) 10×5	☐	$25 + 25$
(7) $35 \div 7$	☐	5×3	(8) $72 \div 8$	☐	$63 \div 7$
(9) 8×4	☐	12×2	(10) 45	☐	$90 \div 2$
(11) $15 \div 15$	☐	$\frac{1}{2}$	(12) $30 \div 6$	☐	5×6
(13) $27 \div 9$	☐	$9 \div 3$	(14) $75 \div 5$	☐	75×5
(15) $30 - 10$	☐	$40 - 10$	(16) $25 - 25$	☐	5

11 ***Complete in the same pattern :***

(a) 22 , 32 , 42 , ... , ... , ... , ...

(b) 5 , 10 , 15 , ... , ... , ... , ...

(c) 13 , 16 , 19 , ... , ... , ... , ...

(d) 80 , 75 , 70 , ... , ... , ... , ...

(e) 222 , 322 , 422 , ... , ... , ... , ...

(f) 1515 , 1520 , 1525 , ... , ... , ... , ...

(g) 1001 , 2002 , 3003 , ... , ... , ...

(h) 5225 , 5335 , ... , 5555 , ... , ... , ...

(j) 143 , 243 , 343 , ... , ... , 643 , ...

12 ***From the following numbers , complete :***

5775 , 4884 , 123 , 5770 , 1221

(a) The odd numbers are ....

(b) The even numbers are ....

13 ***Choose the correct answer from those between brackets :***

(1) $804 \div 4 =$ .... (21 , 201 , 402)

(2) $36 \div 6$ .... $36 \div 4$ (> , < , =)

(3) 3003 .... 1001×3 (> , < , =)

(4) 25 ÷ 5 .... 25 ÷ 25 (> , < , =)

(5) 8109 ÷ 9 .... 91 (> , < , =)

(6) 108 + 3 ....7 (> , < , =)

(7) 2061 ÷ 9 .... 2061 ÷ 9 (> , < , =)

(8) 8080 ÷ 8 = ... (1010 , 110 , 101)

(9) 460 ÷ 2 = ... (36 , 230 , 406)

(10) 9300 ÷ 3 = ... (100 , 3100 , 310)

(11) 777 ÷ 7 = ... (101 , 111 , 11)

14 Bakar bought 240 hens and divided them among his 4, brothers equally , How many hen did each brother take?

Wha each brother took = ... ÷ .... = ...hens

15 There are 150 pupils of 3rd primary , in your school they are distributed among three classes equally

How many pupils are in each class ?

Solution : The number of pupils in each class = ... ÷ .... = ... pupils.

The Third unit Geometry

Answer the following questions :

1 Find the perimeter of the square whose side length is 3 cm.

The perimeter of the square = ………… × ………… = ………… cm.

2 Find the perimeter of the triangle whose side lengths are 5 cm , 7 cm. and 10 cm.

The perimeter of the triangle = ………… + ………… + ………… = ………… cm.

3 The side lengths of a triangle are equal , each of them equals 7 cm. Find the perimeter of the triangle

The perimeter of the triangle = ………… + ………… + ………… = ………… cm.

Or the perimeter of the triangle = ………… × ………… = ………… cm.

What do you notice ?

4 A rectangle , its length = 5 cm. and its width = 3 cm.

Calculate its perimeter.

The perimeter = ……………………… = ………… cm.

5 ABC is a triangle where AB = 3 cm. , AC = 5 cm. and BC = 4 cm. calculate :

The perimeter of Δ ABC

The perimeter of Δ ABC = …………

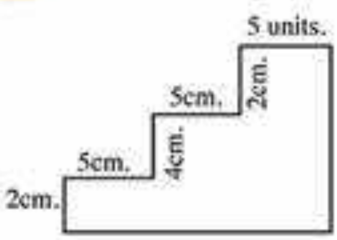
6 The perimeter of any polygon = ……………………………………………

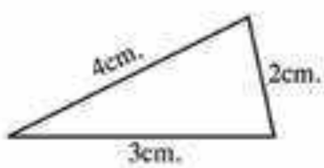
7 A triangle piece of land , its perimeter = 100 m.

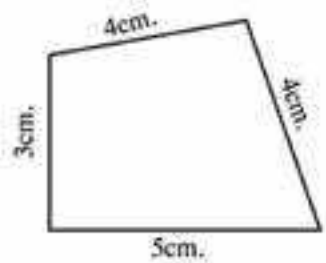
If the sum of the length of two sides of it = 70 m. Find the length of the third side.

The length of the third side = ………… − ………… m.

8 Calculate the perimeter of each of the following shapes using the shown on each shape.







The perimeter = ………… units. The perimeter = ………… units. The perimeter = ………… units.

9 A triangular piece of land , its perimeter = 180 metres

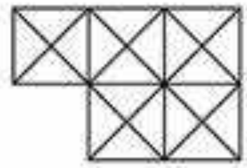
If the lengths of its three sides are equal. Find the length of its side.

The length of each side of land = ………… ÷ ………… = ………… metres.

10 A triangular piece of land , the lengths of two of its sides are 50 m. and 40 m. , its perimeter is 120 m. Find the length of its third side.

The sum of length of the given two sides = ... + ... = ... m.

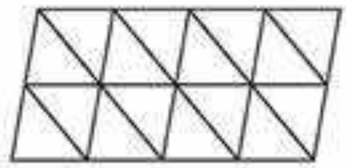
The lengths of the third side = ... − .... = ... m.



11 **In the opposite figure : Find**

(1) The area of the figure = ... square units.

(2) The perimeter of the figure = ... length units.



12 **In the opposite figure : Find**

(1) The perimeter of the figure = ... length units.

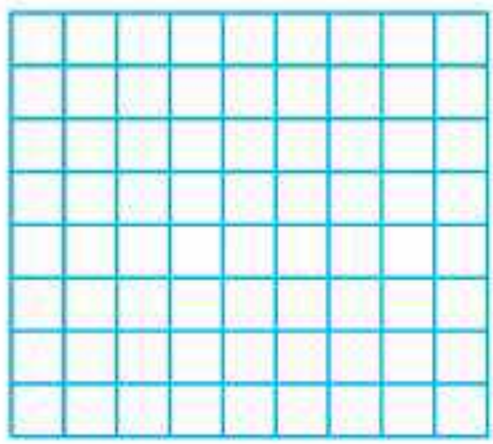
(2) The area of the figure = ... 

(3) The area of the figure = ... 

13 On the square lattice

Draw a figure of area

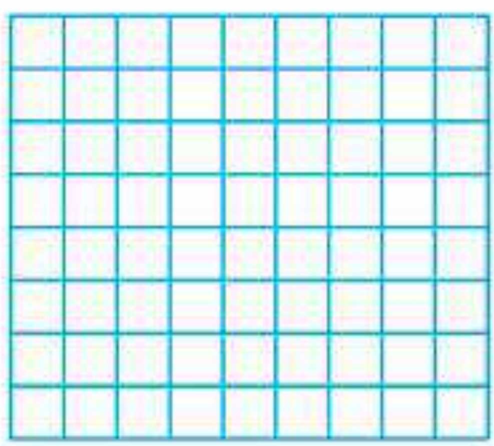
10 square unit.



14 On the square lattice

Draw a figure of

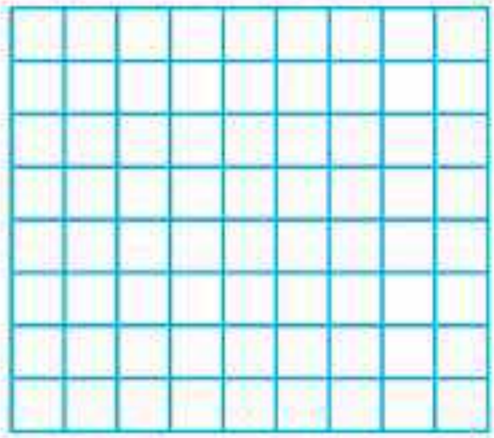
perimeter 12 length unit.



15 On the square grid draw

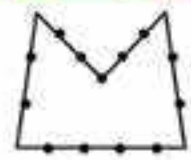
(a) A figure of perimeter 8 length unit.

(b) A figure of area 9 square units.



16 **In the opposite figure :**

If the distance between any two consecutive points is one centimeter.
Find the perimeter of the figure.



17 ***Choose the correct answer from those between brackets :***

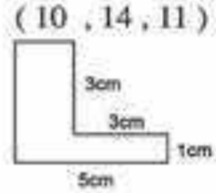
(a) The perimeter of the square whose side length 1 cm. is .... cm. (1 , 4 , $\frac{1}{4}$)

(b) The area of the square whose side length 1 cm. equals .... cm^2. (1 , 4 , $\frac{1}{4}$)

(c) The perimeter of the rectangle whose length is 4 cm. and its width = 2 cm.
, Its perimeter = ... cm. (12 , 14 , 16)

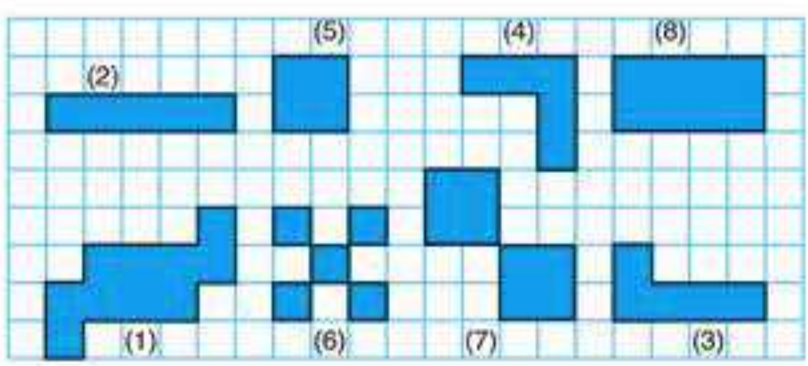
(d) The Perimeter of triangle whose sides lengths are 3cm , 4cm and 7cm equals............cm. (10 , 14 , 11)

18 Calculate the perimeter of the opposite figure



19 **In the opposite lattice :**

Calculate the area of each of the shaded figures then determine the equal areas in square units considering □ as a area unit.



20 Find the perineter of the rectangle whose length = 6 cm. and its width = 3cm.

21 Find the perineter of Δ ABC in which AB = 5 cm., BC = 6 cm. , AC = 6 cm.

22 **In the opposite figure Find :**



(1) The perimeter of the rectangle ABCD

(2) The perimeter of Δ ABX

(3) From the figure find two congruent shapes in perimeter.

(4) The perimeter of the figure AXBCYD = ...

The Fourth unit (Fractions)

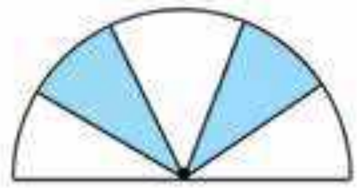
Answer the following questions :

First question :

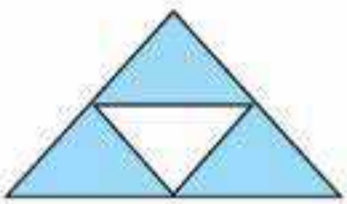
Write the fraction which represents the shaded part in each of the following figures :



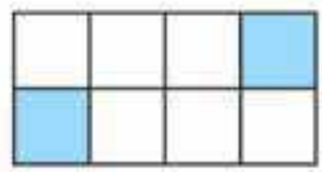
The fraction = $\frac{\cdots\cdots}{\cdots\cdots}$



The fraction = $\frac{\cdots\cdots}{\cdots\cdots}$



The fraction = $\frac{\cdots\cdots}{\cdots\cdots}$



The fraction = $\frac{\cdots\cdots}{\cdots\cdots}$

Second question :

Choose the correct answer from those given between brackets :

(1) Six fifth = ………… $\left(\frac{5}{6} , \frac{6}{5} , \frac{2}{6}\right)$

(2) $\frac{2}{5} + \frac{3}{5} =$ ………… $\left(\frac{1}{5} , 1 , \frac{4}{5}\right)$

(3) $2 = \frac{6}{\cdots\cdots}$ $(3 , 6 , 2)$

(4) Two seventh + 3 seventh $\left(\frac{7}{5} , \frac{5}{7} , \frac{3}{7}\right)$

(5) $\frac{9}{27} = \frac{1}{\cdots\cdots}$ $(3 , 5 , 7)$

(6) $\frac{5}{7} \square \frac{6}{7}$ $(> , < , =)$

(7) $\frac{15}{25} = \frac{\cdots\cdots}{5}$ $(3 , 5 , 7)$

Third question :

Completer the following :

(1) Four fifth $= \frac{\cdots\cdots}{\cdots\cdots}$

(2) $\frac{7}{9} - \frac{5}{9} = \frac{\cdots\cdots}{9}$

(3) $\frac{3}{4} \times \frac{1}{4} = \frac{\cdots\cdots}{\cdots\cdots} = \cdots\cdots$

(4) $1 - \frac{3}{4} = \frac{\cdots\cdots}{\cdots\cdots}$

(5) $\frac{5}{7} + \frac{\cdots\cdots}{\cdots\cdots} = \frac{6}{7}$

(6) $\cdots\cdots - \frac{4}{9} = \frac{3}{9}$

Fourth question :

A case of cheese contains 8 equal pieces. Rania ate two pieces. Write fraction which represents what Rania ate relative to the all pieces in the case.

Fifth question :

A piece of land is divided into 9 equal parts A part of them is planted by cotton , three parts are planted by rice , two parts are planted by wheat.

Write what each of the following represents with respect to the original piece of land.

(1) The part which is planted by cotton.

(2) The land which is planted by rice.

(3) The land which is planted by wheat.

Sixth question :

Use the suitable mark of (> , < , =)

(1) $\frac{3}{5} - \frac{1}{5}$ ☐ $\frac{3}{5}$

(2) $\frac{7}{9}$ ☐ $\frac{5}{9} - \frac{2}{9}$

(3) Four fifth ☐ $\frac{7}{9}$

(4) $\frac{1}{3}$ ☐ $1 - \frac{2}{3}$

(5) $\frac{3}{7}$ ☐ $\frac{2}{7}$

The Fifth unit (Measures)

Answer the following questions :

First question :

Choose the correct answer from those between brackets :

(1) The distance between cairo and Alexandria = ... (210 cm. , 210 m. , 210 km.)

(2) The height of Cairo tower = ... (189 cm. , 189 m. , 189 km.)

(3) The distance between Cairo and Gidda is measured by .... (cm. , m. , km.)

(4) The height of an edifice is measured by .... (cm. , m. , km.)

(5) The length of the swimming pool is measured by .... (cm. , m. , km.)

(6) The child's weight of 6 years (age) is............ (gm. , kg. , km.)

(7) The weight of the ring = ... (14 gm. , 4 kg. , 14 km.)

(8) The orange's weight = ... (200 gm. , 500 gm. , 750 gm.)

(9) The number of the year's days = ... days (360 , 365 , 375)

(10) The temperature of the normal person = ... (35 , 37 , 42)

(11) The day = ... hours (7 , 60 , 24)

(12) 30 hours = one day and .... hours. (6 , 5 , 4)

(13) .... is of length unit. **(gram , kilogram , metre)**

(14) The unit of measuring weights is .... (hour , kg. , km.)

(15) The suitable unit for measuring the distance between two countries............
(m. , kg. , km.)

(16) One year and two months = ... months. (12 , 14 , 24)

(17) Two hours and a quarter = ... minutes. (115 , 135 , 215)

(18) The class' period time is measured **by** .... (thermometer , day , minutes)

Second question :

Completer :

(1) 75 metre = 75 × .... = ... cm.

(2) 25 km. = 25 × .... = ... metre.

(3) 127 metre = 127 × .... = ... cm.

(4) 17 kilometre = 3 × .... = ... m.

(5) 3 kilograms = 3 × .... = ... gm.

(6) 57 kilograms = 57 × .... = ... gm.

(7) 3450 grams = ... kg + ... gm.

(8) 5 kilograms and 125 grams = ... + ... = ... gm.

(9) 9 kilograms and quarter of kg. = ... + ... = ... gm.

(10) 6 kilograms and quarter of kg. = ... + ... = ... gm.

(11) 8 kilograms and 375 gram = ... + ... = ... gm.

(12) One hour and 25 minutes = ... + ... = ... min.

(13) One hour and .... minutes = 80 minutes.

(14) 135 minutes = ... hours + ... minutes.

Third question :

Put the marks (> , < , =) in the suitable place :

(1) 250 gm. ☐ $\frac{1}{4}$ kg.

(2) 4 kg. and 50 gm. ☐ 450 gm.

(3) One hour and 25 minutes ☐ 145 minutes.

(4) 36 hour ☐ two days.

(5) 3 days and 5 hours ☐ 77 hours.

(6) One and half a day ☐ 37 hours.

(7) One year and 3 months ☐ 14 months.

(8) 23 hours ☐ one day.

Fourth question :

Arrange the following measure units , ascendingly and descendingly second time :

(1) 80 hours , two days 20 hours , one day and half.

The ascending order is .... , ... , ... , ...

The descending order is .... , ... , ... , ...

(2) Two and half months , 80 days , 48 days

The ascending order is .... , ... , ...

The descending order is .... , ... , ...

(3) 3 metres and a quarter of metre , 315 cm. , 3 km.

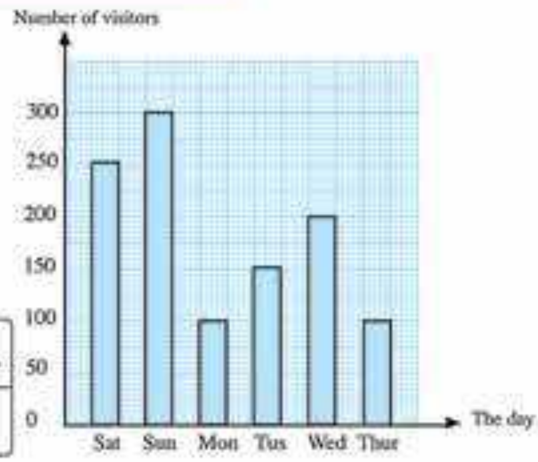
The ascending order is .... , ... , ... , ...

The descending order is .... , ... , ... , ...

The sixth unit statistics

First question :

The following graph shows the number of visitors to the zoo during 6 days :



From the graph find.

First : complete the following table.

The day	sat.	sun.	mon.	tue.	wed.	thu.
Number of visitors						

Second : complete :

(1) The least number of the visitors is on ....

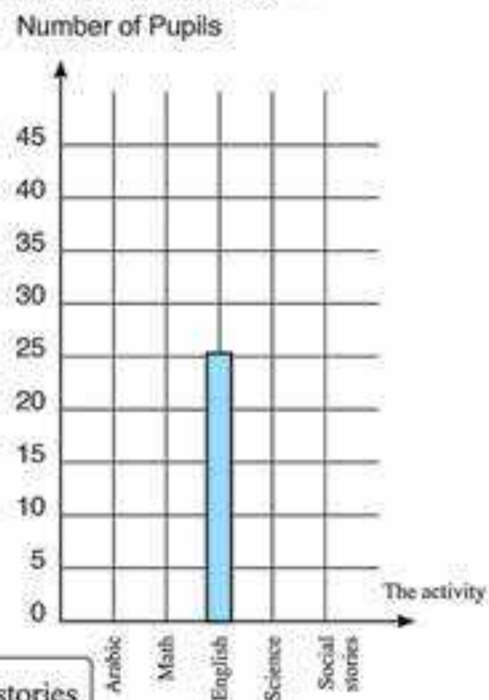
(2) The greatest number of the visitors is on ....

(3) The difference between the greatest number and the least number of visitors = ...

(4) The number of visitors who visited the zoo in , monday and Thursday = ...

The second question

If the number of the pupils who participated in school activity teams of the different subjects of 5th grade primary in your school due to the general evaluation.
of the fundamental subjects as follows
represent the previous data by bar charts.



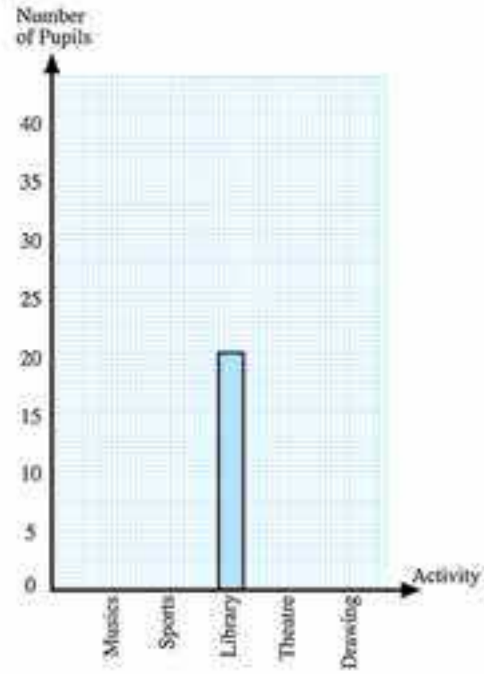
Activity	Arab.	Math	Eng.	Science	Social stories
Number	30	45	....	20	15

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The third question

If the number of the pupils who took part in the school different activities of the 3rd grade/ primary/in your school (General evaluation), subjects owt the total marks as follows

The activity	The number
Musics	15
Sports	30
library	....
theatre	15
Drawing	10



First : Represent these data by bar charts

Second : Complete the following

(1) The least number of the pupils took part in the activity of ....

(2) The most of pupils took part in the activity of ....

(3) The number of pupils who took part in drawing and library together is ....

(4) The number of pupils who took part in musics and sports activities is.

(5) The difference between the pupils who took part in library and theatre activities.

(6) Arrange the activities which the pupils practise them ascending.

(7) Arrange the activities which the pupils practise them descendingly.

The fourth question

The following table shows the kinds of the electric sets in a shop of electric sets

The sets	Fridge	Oven	heater	Fan	Mixture
The number	60	80	70	100	20

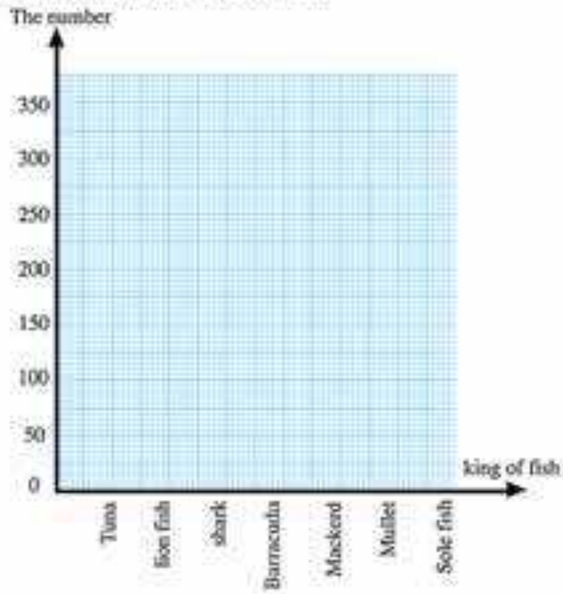
(1) Represent these data by bar charts.

(2) Represent these data by broken line.

The fifth question :

The followng table shows some of kinds of fish which live in red sea.

The kind of fish	The number
Tuna	300
lion fish	100
shark	20
Barracuda	150
mackerd	200
mullet	250
Sole fish	150



First/Represent these data by bar charts

Second/Represent these data by broken line

Third/complete using the previous table

(1) The most number of fish is ....

(2) The least number of fish is ....

(3) There are two kinds of fish having the same number , they are .... and ....

(4) The sum of greatest and least number of fish = ... + ...

(5) The defference between the greatest ad least number or fish is .... − ....

= ....

The sixth question

The following table shows the production of some crops which some desert governorates are well known by them.

Crops	balm	olives	Almonde	maiz	fruit	vegtables
The number	70	50	60	50	10	15

First : represent these data by bar chart.

second : represent these data by broken line.

The seventh question

The following table shows the production of some fundamental crops in the Arab republic of Egypt.

Crops	Sugar cane	rice	wheat	beans	cotton	lentils
The number	70	80	65	70	90	40

Represent these data by broken line

The eighth question

Complete by writing the word (sure , possible , impossible)

(1) It is .... that the sky rains rose

(2) It is .... that the sun rises from East

(3) It is .... that a man is of length 5 metres.

(4) It is .... that the student gets the full mark.

(5) It is .... that the elephant flies.

(6) It is .... that the crocodile lives dry land.

(7) It is .... that the hen bear.

(8) It is .... that the sky is cloudy.

(9) It is .... that the fish live in water.

The ninth question

A box contains 12 balls , 5 balls are white , 4 balls are red , 3 balls are black
Find the probability of each of the following events :

(1) The drawn ball is red

(2) The drawn ball is white

(3) The drawn ball is white or black

The tenth question

As throwing a metalic coin once and observing the upper face. Complete.

(1) The probability of appearing a head = $\frac{..........}{..........}$

(2) The probability of appearing a tail = $\frac{..........}{..........}$

(3) The probability of appearing a head or a tail = $\frac{..........}{..........}$

The eleventh question

Choose the correct answer from those between brackets

(1) As tossing a metallic coin once and observing the upper face then the probability of appearing a head = ...

a. $\frac{1}{2}$ b. 1 c. zero

(2) The sun rises from East is a .... event

a. certain b. possible c. impossible

Models

Model (1)

Answer the following questions :

1 ***Complete the following :***

(1) $2 \times 5 \times 749 =$ ....

(2) $1 - \frac{5}{8} =$ ....

(3) $2010 \div 2 =$ ....

(4) $\frac{5}{7} = \frac{\dots}{7} + \frac{\dots}{7}$

(5) The perimeter of the square whose side length is 5 cm. = ... cm.

2 ***Choose the correct answer from those between brackets :***

(1) One year and a quarter of year = ... month [13 , 14 , 15]

(2) The temperature degree of the human is measured by ....

[metre - thermometre - kilometre]

(3) Two odd numbers, their sum is 100 they are .... and ....

[{ 51 , 49 } , { 52 , 48 } , {50 , 50}]

(4) $9 \times 302 = 2710 +$ .... [6 , 8 , 9]

(5) Appearing a tail as throwing a metalic coin once is .... event

[impossible - certain - possible]

3 ***Choose the correct answer from those between brackets :***

(1) $\frac{1}{5}$ ☐ $\frac{1}{2}$ [> , < , =]

(2) 2 Thirds = ... [$\frac{3}{2}$, 2 , $\frac{2}{3}$]

(3) $1 - \frac{4}{9}$ ☐ $\frac{1}{9} + \frac{4}{9}$ [> , < , =]

(4) The probability that the sun reises from the East = ... [0 , $\frac{1}{2}$, 1]

4 1. A father distributed 200 pounds equally among his four sons in the occasion of feast what is the share of each of the four sons)

The share of each son = ... ÷ .... = ... pounds

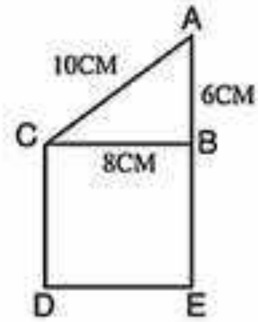
2. **In the opposite figure :**

ABC is a triangle where AB = 6 cm.

BC = 8 cm, AC = 10 cm.

The square BCDE is drawn on $\overline{BC}$

Complete :



(1) The perimeter of the square BCDE = ... cm.

(2) The perimeter of the figure ACDE = ... cm.

5 a. The perimeter of a triangle is 50 cm. If the sum of lengths of units two of its sides is 35 cm. Find the length of the third side.

The length of the third side

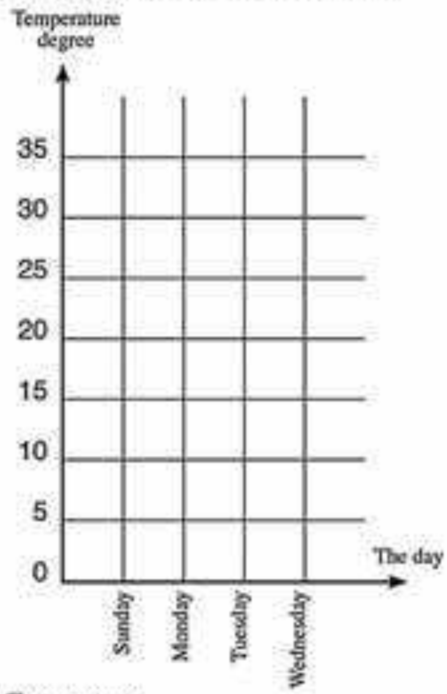
= .... – .... = ... cm

b. The following table shows the temperature degree for 4 days.

The day	Sun.	Mon.	Tue.	Wed.
Temperature degree	25		30	

(1) Complete the table from the graph.

(2) Represent the data by a broken line.



Model (2)

Answer the following questions :

1 *Complete the following :*

(1) 18 ÷ .... = 9 (2) 705 × 6 = ...

(2) One day and two hours = ... hours.

(3) 650 + ... = 800 (5) $\frac{9}{27} = \frac{\dots}{3}$

2 *Choose the correct answer from those between brackets :*

(1) .... is of the length units measure. [gm – min – m]

(2) (5 × 5) ÷ 5 = ... [5 , 1 , 25]

(3) $\frac{2}{5}$ = ... [$\frac{1}{5} + \frac{2}{5}$, $\frac{16}{20}$, $1 - \frac{3}{5}$]

(4) The perimeter of the square whose side length is 4 cm = ... cm. [12 , 16 , 14]

(5) As tossing a metallic coin once , then the probability of appearing a head is .... [0 , $\frac{1}{2}$, 1]

3 *Choose the correct answer from those between brackets :*

(1) 9 tens ÷ 3 = ... [30 , 40 , 50]

(2) Four fifths = ... [$\frac{5}{4}$, 45 , $\frac{4}{5}$]

(3) The fraction which represents the shaded part in the figure  is .... [$\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{3}$]

(4) $\frac{10}{13}$ ☐ $\frac{21}{13}$ [> , < , =]

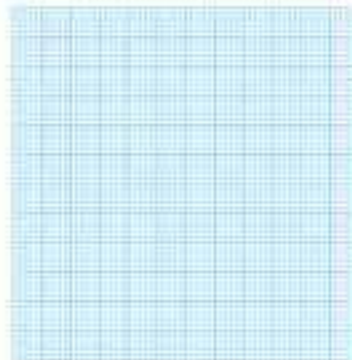
(5) Forty five tens = ... [450 , 45 , 4510]

4 a. A man distributed 690 pounds between his three sons equally.

What is the share of each of them ?

The shape of each son = ... ÷ ....

= .... pounds.



b. **On the square lattice shown :**

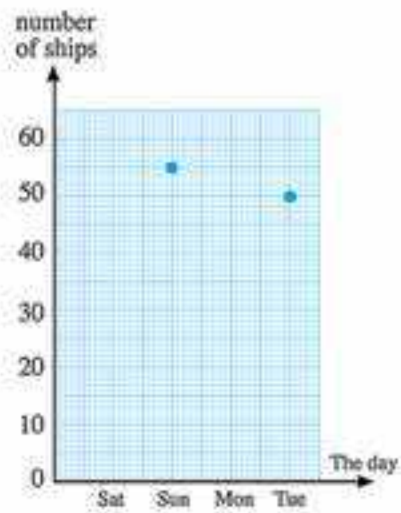
Draw a shape whose perimeter = 12 length unit (consider the side length of the small square as a length unit)

5 a. The side lengths of a triangle are 6 , 7 and 8 cm.

Then its perimeter = ... + ... + ... = ... cm.

b. The authority of suez canal recorded the ships motion during 4 days of the week as shown in the following table and the graph :

The day	number of ships
Saturday	30
Sunday	
Monday	20
Tuesday	



(1) Complete the previous table from the graph.

(2) Represent these data by broken line.

Model (3)

Answer the following questions :

1 *Complete the following :*

(1) $\frac{5}{9} - \frac{4}{9}$ (2) $5 \times 4 \times 10$ = ... (3) The day = ... hours.

(4) The probability that the sun rises from west = ...

(5) $\frac{3}{7} + \frac{2}{7}$ = ...

2 *Choose the correct answer from those between brackets :*

(1) $\frac{3}{4}$ ☐ $\frac{5}{4}$ [> , < , =]

(2) A square of perimeter 16 cm, then its side length = ... cm. [6 , 5 , 4]

(3) Five sixth = ...

(4) 3009 ÷ 3 = ... [3001 , 1003 , 3003]

(5) 3 kg = ... gm [300 , 30 , 3000]

3 ***Choose the correct answer from those between brackets :***

(1) The length of the pen in your bag is measured by .... [km , gm , cm]

(2) The fraction which represents the shaded part in the figure  is ....

[1 , $\frac{3}{8}$, $\frac{1}{2}$]

(3) 354 × 2 ☐ 354 ÷ 2 [> , < , =]

(4) The temperature degree of the normal human = ... [70° , 37° , 47°]

(5) It .... that the elephant flies. [possible , impossible , certain]

4 ***(1) Arrange the following fractions ascendingly :***

$\frac{1}{8}$, $\frac{7}{8}$, $\frac{5}{8}$, $\frac{3}{8}$

The ascending order is .... , ... , ... , ...

(2) Ahmed bought 3 toys of 20 pounds for each.

Find the price of the three toys.

The price of the three toys = ... + ... + ... = ... pounds.

5 ***(1) Find the perimeter of triangle whose side lengths are 5 , 5 and 7 cm.***

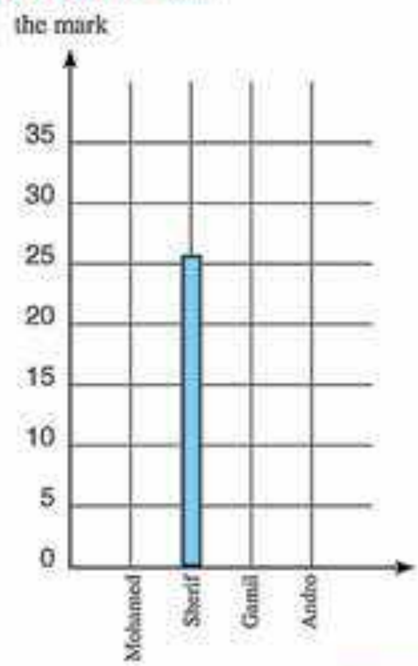
The perimeter of the triangle

= .... + ... + ... = ... cm.

(2) The following table shows the marks of some pupils in a month :

Represent that by bar charts , then complete the table.

Name	The mark
Mohamed	20
Sherif	
Gamil	15
Andro	30



Model (4)

Answer the following questions :

1 Complete the following :

(1) $100 \times 3 \times 2 =$ .... (2) $\frac{3}{5} - \frac{1}{5} =$ ....

(3) $\frac{15}{20} = \frac{3}{\cdots\cdots}$

(4) The probability of appearing a head as throwing a fair metallic coin once is ....

(5) One year and two months = ... months.

2 Choose the correct answer from those given between brackets :

(1) $\frac{7}{9}$ $\square$ $\frac{7}{9} - \frac{2}{9}$ [> , < , =]

(2) $3006 \div 3 =$ .... [102 , 1001 , 1002]

(3) The temperature degree of the normal human is .... [70° , 37° , 47°]

(4) $\frac{4}{7} + \frac{3}{7}$ $\square$ 1 [> , < , =]

(5) .... is of the units of measuring lengths

[The metre , Thermometre , kilogram]

3 Choose the correct answer from those between brackets :

(1) The event of (The sun rises from the East) is .... event.

[possible , impossible , certain]

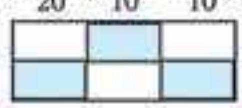
(2) six fifths = ... [5 , $\frac{6}{5}$, $\frac{5}{6}$]

(3) The perimeter of the square whose side length 5 cm equals .... cm.

[10 , 20 , 30]

(4) $\frac{7}{10} =$ .... [$\frac{9}{10} - \frac{1}{10}$, $\frac{14}{20}$, $\frac{7}{10} - \frac{5}{10}$]

(5) The fraction which represents the area of the shaded parts with respect the figure represents ....



[$\frac{1}{2}$, $\frac{4}{5}$, $\frac{2}{6}$]

4 (1) Arrange the following fractions descendingly :

$\frac{3}{10}$, $\frac{9}{10}$, $\frac{1}{10}$, $\frac{7}{10}$

The descending order is .... , ... , ... , ...

(2) Sherin bought is 15 pencils, the price of each is 50 piastres. Find the price of pencils which sherin bought.

The price of pencils = ... × .... = ... piastres.

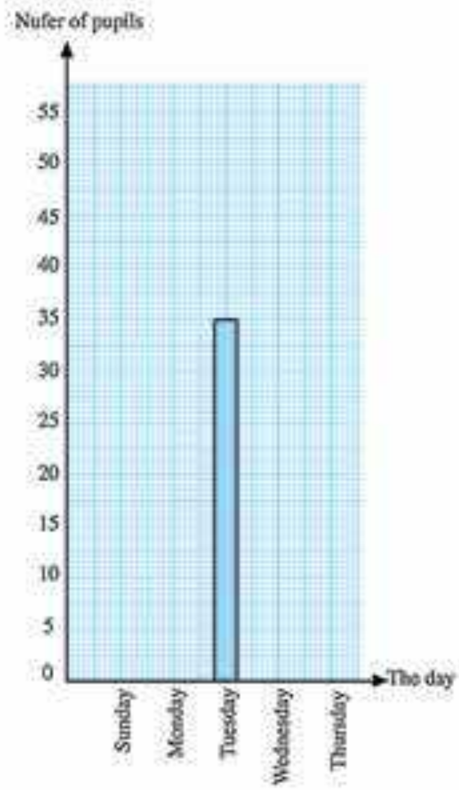
5 *(1)* If the lengths of the sides of a triangle are 10 cm. , 8 cm. and 6 cm. ,

Find the perimeter of the triangle

The perimeter of the triangle = ... + ... + ... = ... cm.

(2) The following table and the graph show the number of pupils who were present during a week in a class in a school :

The day	Present pupils
Sunday	30
Monday	20
Tuesday	
Wednesday	40
Thursday	25



Model (5)

Answer the following questions :

1 *Complete the following :*

(1) 3 weeks = ... days.

(2) $5 \times 5 \times 10 =$ .... $\times 10 =$ ....

(3) If the perimeter of a triangle is 30 cm and the sum of lengths of two sides of it are 25 cm. , then the length of the third side = ... – .... = ... cm.

(4) The even numbers which are less than 6 are .... , ...

(5) $636 \div 3 =$ ....

2 *Choose the correct answer from those between brackets :*

(1) As tossing a metallic coin once, then the probability of appearing a tail is ....
[0 , $\frac{1}{2}$, 1]

(2) The perimeter of an equilateral triangle is 18 cm, then its side length = ...
[9 , 12 , 6]

(3) $2014 \div 2 =$ .... [1007 , 107 , 17]

(4) Which of these numbers is even ? [3 , 8 , 5]

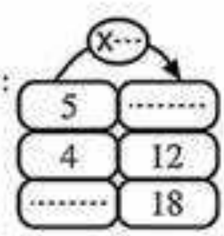
(5) $102 \times 7 =$ .... [417 , 714 , 741]

3 *Choose the correct answer from those between brackets :*

1. Put the suitable symbols of [> , < , =]

$\frac{1}{2}$ ☐ $\frac{1}{3}$ 435×3 ☐ $435 \div 3$

2. Put the suitable number in the space :



4 *(1)* Hoda's father distributed 303 pounds between his three sons. What is the share of each of them ?

The share of each son = ... ÷ .... = ... pounds.

(2) Arrange the following fractions descendingly : $\frac{1}{2}$, $\frac{1}{5}$, $\frac{1}{3}$, $\frac{1}{8}$

The order is .... , ... , ... , ...

5 (1) Calculate the perimeter of a square of side length 4 cm.

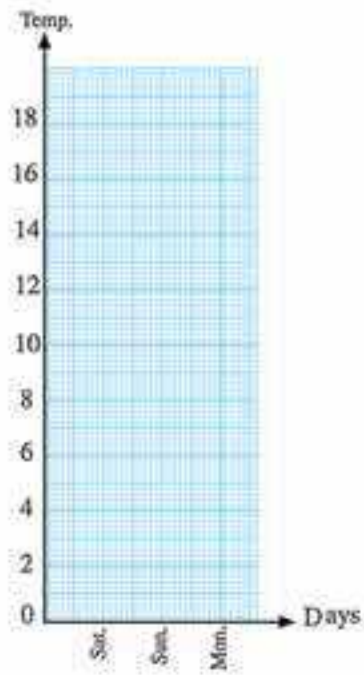
(2) Express the shaded parts by fractions.



(3) The following table shows the maximum temperature of degrees in 3 consecutive days.

Represent these data by broken line.

The day	Temperature degree
Saturday	15
Sunday	18
Monday	14



Model (6)

Answer the following questions :

1 ***Put the mark (✓) or (×) :***

(1) $\frac{1}{2} < \frac{1}{3}$ ( )

(2) The appearing of the sun from the east is a certain event ( )

(3) The temperature degree of the normal human is 73 ( )

(4) $505 \div 5 = 11$ ( )

(5) Two weeks = 14 days. ( )

2 ***Complete the following :***

(1) Your tallness is measured by .... unit.

(2) A case of triangular pieces of cheese contains 8 pieces than 3 pieces of them represent the fraction ....

(3) The area of the shape  equals .... 

(4) $420 \times 2 =$ ....

(5) $\frac{3}{4} + \frac{1}{4} =$ ....

3 ***Choose the correct answer from those between brackets :***

(1) $\frac{3}{4} +$ .... $= 1$ [$\frac{1}{4}$, 1 , $\frac{2}{4}$]

(2) The length of the electricity post in the street is measure by .... [m. , gm. , degree]

(3) It is .... the sky rains tomorrow. [possible , impossible , certain]

(4) $35 \div 5$ ☐ $5 + 7$ [> , < , =]

(5) .... is from odd numbers [12 , 14 , 15]

4 1. Put the suitable symbols of [> , < , =]

$\frac{1}{2}$ ☐ $\frac{1}{3}$, 1 ☐ $\frac{7}{7}$, $\frac{2}{5}$ ☐ $\frac{3}{5}$

2. Your school has 7 classes equals in the number of pupils. If the class contains 30 pupils , then what is the number of pupils in your school ?

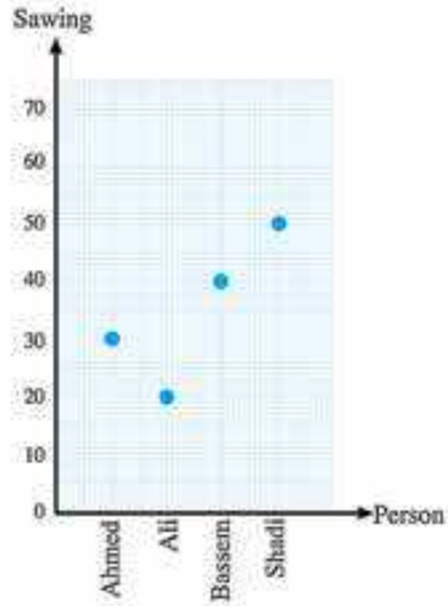
The number of pupils = ... × .... = ... pupils.

5 1. Calculate the perimeter of the triangle whose side lengths are 10 , 8 , 6 cm.

The perimeter = ... + ... + ... = ... cm.

2. From the graph complete the table

The pupil	What he saved
Ahmed	....
Ali	....
Bassem	....
Shadi	....



المواصفات الفنيــة:

مقـــاس الكتــــاب:	$\frac{١}{٨}$ (٥٧ × ٨٢) سم
طبـــع المتـــن:	٤ لون
طبـــع الغــلاف:	٤ لون
ورق المتـــــن:	٨٠ جم أبيض
ورق الغــــلاف:	٢٠٠ جم كوشيه
عدد الصفحات بالغلاف:	١٣٢ صفحة

دار مكة المكرمة للطباعة والنشر